

Appendix I: Pesticides and Toxicity Monitoring History

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INTRODUCTION

This document contains individual site subwatershed analyses for sites in the Coalition region where focused outreach is planned to occur for pesticide and toxicity management plans. Each individual site subwatershed section includes:

- A description of the site subwatershed with land use map,
- The subwatershed monitoring history for pesticide and toxicity management plan constituents,

SUBWATERSHED FARM EVALUATION PRACTICES

The Coalition will utilize 2014 Farm Evaluation responses to determine if growers may need to implement additional management practices. The practices recommended to growers will consider the mode of transport of management plan constituents, primary crop types, farm evaluation responses, and year of last exceedance. Table 1 through Table 3 provide the acreage of implemented management practices reported for: 1) pesticide application practices, 2) irrigation practices, and 3) irrigation and cultural practices for managing sediment and erosion within each subwatershed and the corresponding represented subwatershed. The Coalition will utilize Farm Evaluation Responses from the most recent year to determine which growers to target. The Farm Evaluation responses provided in the tables below are from 2014 and represent a baseline of responses. The Coalition will compare future responses to the baseline to determine if additional practices have been implemented.

Table 1. WSJRWC 2014 Farm Evaluation Responses for Pesticide Application Practices in Acreage.

PESTICIDE APPLICATION MANAGEMENT PRACTICES	BLEWEIT DRAIN		BLEWEIT DRAIN-REPRESENTED		DEL PUERTO CREEK		DEL PUERTO CREEK-REPRESENTED		HOSPITAL CREEK		HOSPITAL CREEK-REPRESENTED		INGRAM CREEK		INGRAM CREEK-REPRESENTED		LOS BANOS CREEK		MARSHALL ROAD DRAIN		MARSHALL ROAD DRAIN- REPRESENTED		MUD SLOUGH		NEWMAN WASTEWAY		NEWMAN WASTEWAY-REPRESENTED		ORESTIMBA CREEK		ORESTIMBA CREEK-REPRESENTED		RAMONA LAKE		SALT SLOUGH		SAN JOAQUIN RIVER AT LANDER- REPRESENTED		SPANISH LAND GRANT DRAIN		WESTLEY WASTEWAY		WESTLEY-REPRESENTED																																																																																																																																																																																																																																																																																																																																				
	Attend Trainings	846	473	5,677	1,765	1,840	272	4,862	1,539	1,717	3,478	1,291	893	704	2,560	752	2,523	3,005	40,402	20,358	1,081	1,536	3,599	Avoid Surface Water When Spraying	905	473	5,407	2,535	1,953	272	5,122	1,539	1,833	4,024	1,288	908	904	4,873	800	2,611	3,051	40,969	20,463	1,105	1,536	3,835	Chemigation	0	440	1,475	336	786	0	1,827	581	0	1,495	82	0	290	892	102	659	25	25,384	10,715	841	426	1,735	County Permit Followed	905	473	5,820	2,488	2,038	272	5,297	1,540	1,857	4,259	1,328	908	1,077	6,908	898	2,948	3,079	40,986	20,463	1,328	1,536	3,835	End of Row Shutoff When Spraying	905	473	5,408	2,466	2,038	272	2,066	1,489	1,717	4,066	1,137	908	586	3,789	761	1,008	2,082	40,587	13,883	1,164	1,536	3,261	Follow Label Restrictions	905	473	5,820	2,556	2,038	272	5,297	1,540	1,833	4,192	1,288	908	904	5,383	778	2,834	3,065	41,215	20,463	1,328	1,540	3,835	Monitor Rain Forecasts	846	473	3,481	1,931	1,736	272	2,647	1,339	1,811	3,389	1,086	908	904	4,018	761	2,566	2,029	35,308	19,520	1,133	1,380	3,504	Monitor Wind Conditions	905	473	4,680	2,528	2,038	272	6,141	1,539	1,833	3,954	1,288	384	904	4,246	791	2,614	3,065	40,874	20,463	1,255	1,536	3,835	No Pesticides Applied	0	0	156	137	0	0	0	0	87	257	37	59	12	162	14	38	65	1,295	4	0	0	3	Reapply Rinsate to Treated Field	512	33	2,564	1,312	1,459	272	1,384	920	1,717	2,467	1,016	331	190	3,332	241	47	1,931	37,543	6,081	882	603	1,229	Sensitive Areas Mapped	770	33	2,693	1,969	1,266	150	3,370	1,061	227	2,541	1,012	593	290	2,154	40	1,073	1,630	22,898	6,019	969	543	2,301	Target Sensing Sprayer used	547	473	1,427	1,204	1,266	150	599	106	35	2,050	833	524	100	1,309	40	30	442	9,630	1,707	841	345	601	Use Appropriate Buffer Zones	905	473	3,399	2,197	1,702	272	4,688	1,500	576	3,646	1,202	539	904	4,036	567	2,509	3,011	40,681	18,779	1,151	1,285	3,098	Use Drift Control Agents	712	473	3,080	2,040	1,378	272	4,794	1,489	1,746	3,219	1,207	855	290	3,357	752	822	2,720	40,855	20,463	1,136	1,258	3,303	Use PCA Recommendations	905	473	5,192	2,371	1,949	272	5,032	1,722	1,811	3,777	1,280	880	1,236	4,746	889	3,170	2,848	40,873	20,463	1,281	1,335	3,306	Use Vegetated Drain Ditches	405	440	1,335	771	716	272	127	658	111	638	428	53	0	1,411	39	630	326	6,402	1,792	141	550

Table 2. WSJRWC 2014 Farm Evaluation Responses for Irrigation Practices in Acreage

IRRIGATION PRACTICE	BLEWETT DRAIN	BLEWETT DRAIN-REPRESENTED	DEL PUERTO CREEK	DEL PUERTO CREEK-REPRESENTED	HOSPITAL CREEK	HOSPITAL CREEK-REPRESENTED	INGRAM CREEK	INGRAM CREEK-REPRESENTED	LOS BANOS CREEK	MARSHALL ROAD DRAIN	MARSHALL ROAD DRAIN-REPRESENTED	MUD SLOUGH	NEWMAN WASTEWAY	NEWMAN WASTEWAY-REPRESENTED	ORESTIMBA CREEK	ORESTIMBA CREEK-REPRESENTED	RAMONA LAKE	SALT SLOUGH	SAN JOAQUIN RIVER AT LANDER-REPRESENTED	SPANISH LAND GRANT DRAIN	WESTLEY WASTEWAY	WESTLEY-REPRESENTED
Drip	76	0	2,193	343	487	122	2,002	442	0	387	79	524	0	612	0	509	0	12,143	12,090	194	477	1,248
Flood	347	0	322	1,235	45	150	340	27	711	1,321	683	185	153	958	0	515	417	5,860	401	238	0	77
Micro Sprinkler	317	473	1,255	207	1,105	0	771	233	0	760	131	0	418	1,192	726	881	0	0	0	193	602	1,351
Sprinkler	165	0	566	216	180	0	665	524	145	413	0	136	0	280	40	0	203	253	0	263	70	412
Border Strip	0	0	80	10	0	0	0	139	0	17	257	53	278	813	39	25	1,902	5,851	1,620	45	0	55
Furrow	0	0	1,406	597	221	0	420	384	1,403	1,101	223	70	395	3,238	98	1,302	570	16,750	5,687	395	305	692
No Selection	0	0	132	59	0	2	787	0	97	369	25	218	11	140	0	181	62	1,698	62	0	96	38

Table 3. WSJRWC 2014 Farm Evaluation Responses for Irrigation and Cultural Practices for Managing Sediment and Erosion in Acreage

SEDIMENT AND EROSION MANAGEMENT PRACTICES	CULTURAL PRACTICES FOR MANAGING SEDIMENT AND EROSION IN ACREAGE																		BLEWETT DRAIN		BLEWETT DRAIN-REPRESENTED		DEL PUERTO CREEK		DEL PUERTO CREEK-REPRESENTED		HOSPITAL CREEK		HOSPITAL CREEK-REPRESENTED		INGRAM CREEK		INGRAM CREEK-REPRESENTED		LOS BANOS CREEK		MARSHALL ROAD DRAIN		MARSHALL ROAD DRAIN- REPRESENTED		MUD SLough		NEWMAN WASTEWAY		NEWMAN WASTEWAY-REPRESENTED		ORESTIMBA CREEK-REPRESENTED		RAMONA LAKE		SALT SLough		SAN JOAQUIN RIVER AT LANDER- REPRESENTED		SPANISH LAND GRANT DRAIN		WESTLEY WASTEWAY		WESTLEY-REPRESENTED	
	No irrigation drainage due to field or soil conditions.	340	440	3,062	288	1,917	0	2,549	1,335	603	2,490	390	805	2,197	7,702	6,162	3,600	93	6,121	4,944	1,453	819	1,373																																					
No Selection	890	0	1,330	130	351	303	790	60	601	2,585	65	980	470	3,609	917	1,083	50	8,187	1,932	302	421	263																																						
PAM (polyacrylamide) used in furrow and flood irrigated fields to help bind sediment and increase infiltration.	165	0	2,394	657	680	0	896	505	67	1,806	683	38	0	1,129	2,030	466	1,130	1,208	72	1,718	331	1,416																																						
Shorter irrigation runs are used with checks to manage and capture flows.	282	33	3,572	1,091	2,063	0	2,841	1,070	2,624	3,567	790	569	1,320	5,781	2,617	2,551	754	29,590	15,828	1,608	629	2,602																																						
Tailwater Return System.	144	0	245	508	156	0	240	0	1,527	1,608	626	145	600	2,943	1,111	2,586	2,155	3,671	5,905	0	0	0																																						
The time between pesticide applications and the next irrigation is lengthened as much as possible to mitigate runoff of pesticide residue.	261	473	5,111	1,998	2,443	122	3,444	1,176	3,394	4,927	1,976	1,225	1,698	13,297	5,877	7,173	2,645	47,767	20,559	2,533	1,054	2,614																																						
Use drip or micro-irrigation to eliminate irrigation drainage.	537	473	5,102	680	3,036	122	4,452	825	78	3,086	422	540	2,302	8,189	6,596	5,531	117	20,093	14,543	1,388	1,482	2,871																																						
Use of flow dissipaters to minimize erosion at discharge point.	76	0	107	89	202	0	305	0	508	2,175	315	0	49	429	1,897	871	68	3,536	826	812	0	0																																						
Berms are constructed at low ends of fields to capture runoff and trap sediment.	117	0	1,420	992	460	0	374	327	1,675	3,501	1,009	882	410	6,615	3,964	1,631	2,413	33,629	24,442	1,472	334	826																																						
Cover crops or native vegetation are used to reduce erosion.	688	473	4,488	568	2,863	0	3,628	794	1,254	2,394	477	82	2,532	8,482	5,521	5,070	230	14,340	5,491	1,562	1,307	2,409																																						
Creek banks and stream banks have been stabilized.	58	0	761	805	405	0	1,296	225	16	2,197	597	16	0	1,471	4,664	957	131	2,579	1,147	1,082	153	0																																						
Crop rows are graded, directed and at a length that will optimize the use of rain and irrigation water.	282	440	3,150	785	1,646	0	1,626	1,417	2,574	3,783	706	1,021	1,042	6,659	3,772	4,801	2,062	48,479	23,421	1,180	591	1,244																																						
Field is lower than surrounding terrain.	117	0	105	219	100	0	220	27	312	719	139	18	251	2,461	3,289	785	0	2,695	0	788	0	38																																						
Hedgerows or trees are used to help stabilize soils and trap sediment movement.	59	440	1,158	28	258	122	994	171	0	830	113	2	779	2,586	2,110	606	0	3,289	2,492	267	194	348																																						
Minimum tillage incorporated to minimize erosion.	402	473	3,396	866	1,904	122	5,028	1,552	2,429	4,215	915	822	2,615	9,766	6,983	6,331	407	29,277	7,231	1,636	1,434	2,541																																						
No storm drainage due to field or soil conditions.	59	473	1,715	584	1,436	0	2,282	608	2,095	1,223	774	787	752	7,085	3,871	2,101	254	2,118	286	1,140	205	498																																						
Sediment basins / holding ponds are used to settle out sediment and hydrophobic pesticides such as pyrethroids from irrigation and storm runoff.	59	0	1,694	1,525	544	0	1,868	410	599	4,594	1,535	0	768	5,969	4,258	4,360	2,350	1,309	529	1,953	155	603																																						

**SEDIMENT AND EROSION
MANAGEMENT PRACTICES**

	BLEWEITT DRAIN		BLEWEITT DRAIN-REPRESENTED		DEL PUERTO CREEK		DEL PUERTO CREEK-REPRESENTED		HOSPITAL CREEK		HOSPITAL CREEK-REPRESENTED		INGRAM CREEK		INGRAM CREEK-REPRESENTED		LOS BANOS CREEK		MARSHALL ROAD DRAIN		MARSHALL ROAD DRAIN-REPRESENTED		MUD SLOUGH		NEWMAN WASTEWAY		NEWMAN WASTEWAY-REPRESENTED		ORESTIMBA CREEK		ORESTIMBA CREEK-REPRESENTED		RAMONA LAKE		SALT SLOUGH		SAN JOAQUIN RIVER AT LANDER-REPRESENTED		SPANISH LAND GRANT DRAIN		WESTLEY WASTEWAY		WESTLEY-REPRESENTED	
Soil water penetration has been increased through the use of amendments, deep ripping and/or aeration.	426	473	6,172	1,605	2,367	0	4,568	1,677	2,910	5,453	1,261	1,309	2,720	13,689	7,313	7,786	2,003	50,931	17,269	2,187	1,177	2,736																						
Storm water is captured using field borders.	117	440	1,705	1,149	938	0	417	656	2,401	3,259	756	369	1,507	7,372	4,305	4,591	400	27,823	4,879	2,040	640	1,135																						
Subsurface pipelines are used to channel runoff water.	117	0	1,288	681	773	0	547	236	61	3,021	722	0	214	1,349	5,590	4,684	270	2,414	9,781	1,041	196	310																						
Catchment Basin.	0	0	1,680	1,362	842	0	1,250	432	854	3,829	1,569	20	719	8,929	3,693	3,794	2,756	796	580	2,069	405	592																						
In-furrow dams are used to increase infiltration and settling out of sediment prior to entering the tail ditch.	0	0	1,254	591	114	0	262	304	1,920	2,823	380	292	1,178	4,509	2,042	2,936	345	23,437	3,227	1,481	305	829																						
Vegetated ditches are used to remove sediment as well as water soluble pesticides, phosphate fertilizers and some forms of nitrogen.	0	0	1,480	535	887	0	1,414	687	837	2,033	1,143	162	71	3,566	2,253	1,676	874	9,796	3,198	485	229	727																						
Vegetative filter strips and buffers are used to capture flows.	0	0	950	285	381	0	844	657	307	388	306	26	22	2,633	1,051	337	101	1,694	565	239	226	273																						

MANAGEMENT PLAN SUBWATERSHEDS

The performance goals and measures provided in the Pesticide and Toxicity SQMP will occur in the subwatersheds listed below.

BLEWETT DRAIN AT HWY 132

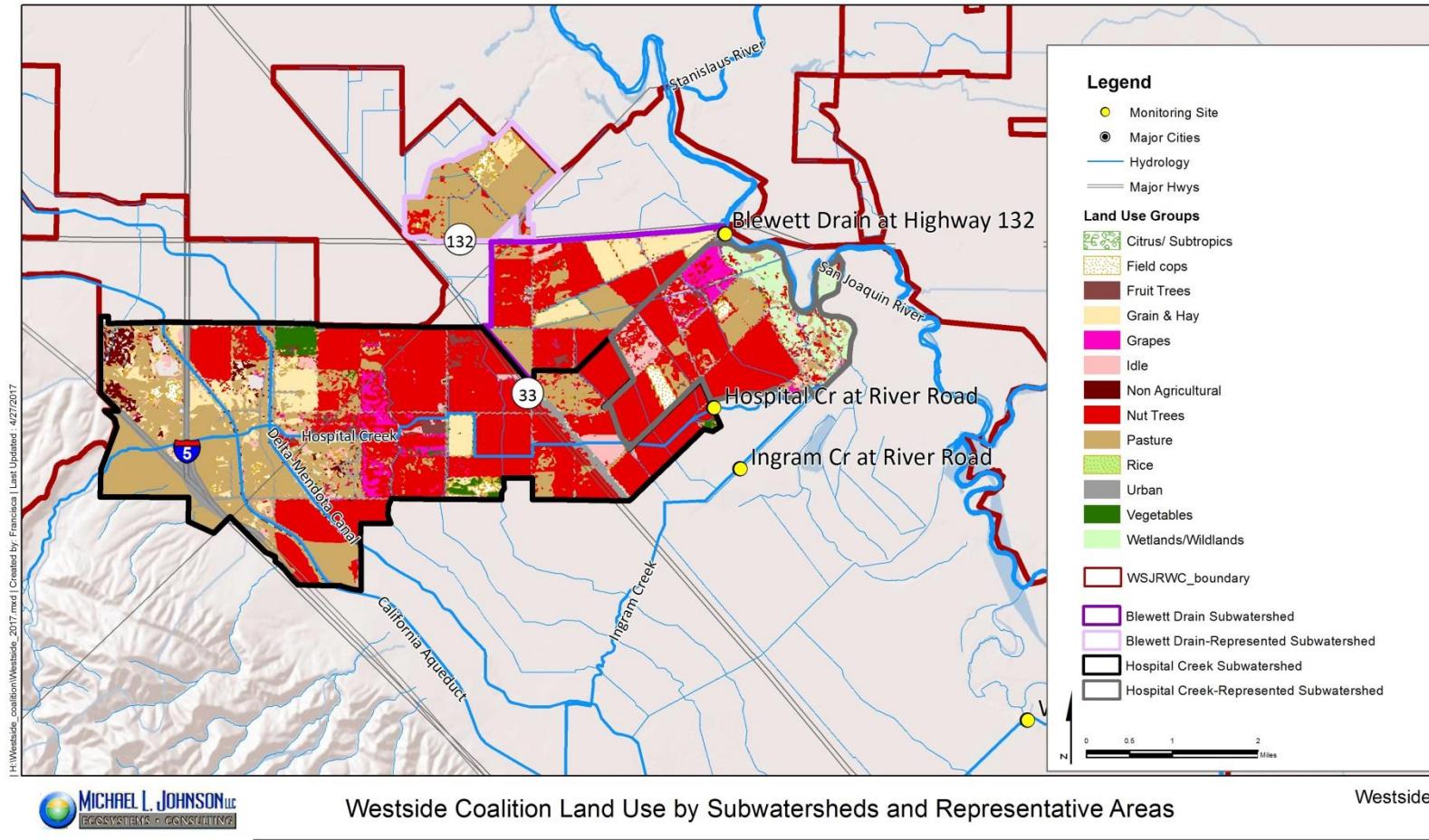
Description of Subwatershed

Blewett Drain near Highway 132 (originally called Vernalis at Highway 132 [VH132]) is located at the northerly boundary of the Coalition region in Stanislaus County with small portions in San Joaquin County. The subarea includes 2500 acres of irrigated area. A portion of the Blewett Drain is piped. The primary irrigated acreage within the subwatershed are almonds, walnuts, tomatoes and alfalfa. Discharge at this site is calculated as an estimated velocity and measured flow area. The WSJRWRC began monitoring this site in 2008.

Table 4. Blewett Drain at Hwy 132 management plan constituents.

10 YEAR DEADLINE	SUBWATERSHED NAME	CONSTITUENT	LAST EXCEEDANCE
2019	Blewett Drain at Highway 132	Chlorpyrifos	2013
2020	Blewett Drain at Highway 132	<i>H. azteca</i>	2015
2023	Blewett Drain at Highway 132	Diuron	2012

Figure 1. Blewett Drain at Hwy 132 subwatershed land use map



Monitoring History Results

The Coalition initiated monitoring at Blewett Drain @ Hwy 132 in 2008 and has continued to the present.

Table 5. Blewett Drain at Hwy 132 monitoring history for management plan constituents.

MONITORING YEAR	MANAGEMENT PLAN CONSTITUENTS	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT
2008	Date:				4/8/2008		6/10/2008	7/8/2008	8/12/2008	9/9/2008	
	Chlorpyrifos				0.034		0.045	0.038	0.081		
	DDE(p,p')				0.071		<0.004	<0.004	0.0063		
	Diuron				0.27		<0.20	<0.20	<0.20		
	<i>Hyalellula azteca</i>									16.25	
2009	Date:	2/13/2009	3/9/2009								
	Chlorpyrifos	0.018									
	DDE(p,p')	0.0097									
	Diuron	<0.20									
2010	<i>Hyalellula azteca</i>			18.75							
	Date:	1/25/2010									
	Chlorpyrifos	0.35									
	DDE(p,p')	0.016									
2011	Diuron	0.49									
	Date:				4/12/2011	5/10	5/24	6/14/2011	7/12/2011	8/9/2011	9/12/2011
	Chlorpyrifos				<0.0026		<0.0026	<0.0026	<0.0026		
	DDE(p,p')				<0.004		<0.004	<0.004	0.011	<0.004	
	Diuron				<0.20		<0.20	1.4	<0.20	<0.20	
2012	<i>Hyalellula azteca</i>				86.25					56.3	
	Date:	3/11	3/12	4/10/2012	5/8/2012		6/12/2012		8/14/2012	9/10/2012	
	Chlorpyrifos			<0.0026	0.024		<0.0026			0.14	
	DDE(p,p')			<0.004	<0.004		<0.004			<0.004	
	Diuron			0.53	16	8.7	1.8			<0.20	
2013	<i>Hyalellula azteca</i>		95							3.75	
	Date:		3/11/2013				6/11/2013	7/9/2013	8/13/2013	9/9/2013	
	Chlorpyrifos		<0.0026				<0.0026	0.026	<0.0026		
	DDE(p,p')		<0.004				<0.004	<0.004	<0.004		
	Diuron		0.99				<0.20	<0.20	<0.20		
2014	<i>Hyalellula azteca</i>			3.75						86.25	
	Date:		3/10/2014	4/8/2014	5/13/2014		7/8/2014	8/12/2014	9/7	9/8	10/14/2014
	Chlorpyrifos			<0.0026	<0.0026		<0.0026	<0.0026		<0.0026	<0.0026
	DDE(p,p')			<0.004	<0.004		<0.004	<0.004		<0.004	<0.004
	Diuron			<0.20	<0.20		<0.20	<0.20		<0.20	<0.20
2015	<i>Hyalellula azteca</i>			61.25						26.25	
	Date:		3/10/2015	4/14/2015	5/12/2015	6/9/2015	7/14/2015		9/14	9/15	
	Chlorpyrifos		<0.0026	<0.0026	<0.0026	<0.0026	<0.0026			0.014	
	DDE(p,p')		<0.004	<0.004	<0.004	<0.004	<0.004			<0.004	
	Diuron		<0.20	<0.20	<0.20	<0.20	<0.20			<0.20	
2016	<i>Hyalellula azteca</i>			50						1.25	
	Date:				5/10/2016	6/14/2016	7/12/2016	8/9/2016	9/12/2016		

MONITORING YEAR	MANAGEMENT PLAN CONSTITUENTS	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT
	Chlorpyrifos					<0.0026	<0.0026	<0.0026	<0.0026		
	DDE(p,p')					<0.004	<0.004	<0.004	<0.004		
	Diuron					<0.20	<0.20	<0.20	<0.20		
	<i>Hyalella azteca</i>									6.25	
2017	Date:		3/13	3/14	4/11/2017	5/9/2017					
	Chlorpyrifos			<0.0026	<0.0026	<0.0026					
	DDE(p,p')			<0.004	<0.004	<0.004					
	Diuron			<0.20	<0.20	<0.20					
	<i>Hyalella azteca</i>		95								

DEL PUERTO CREEK AT HWY 33

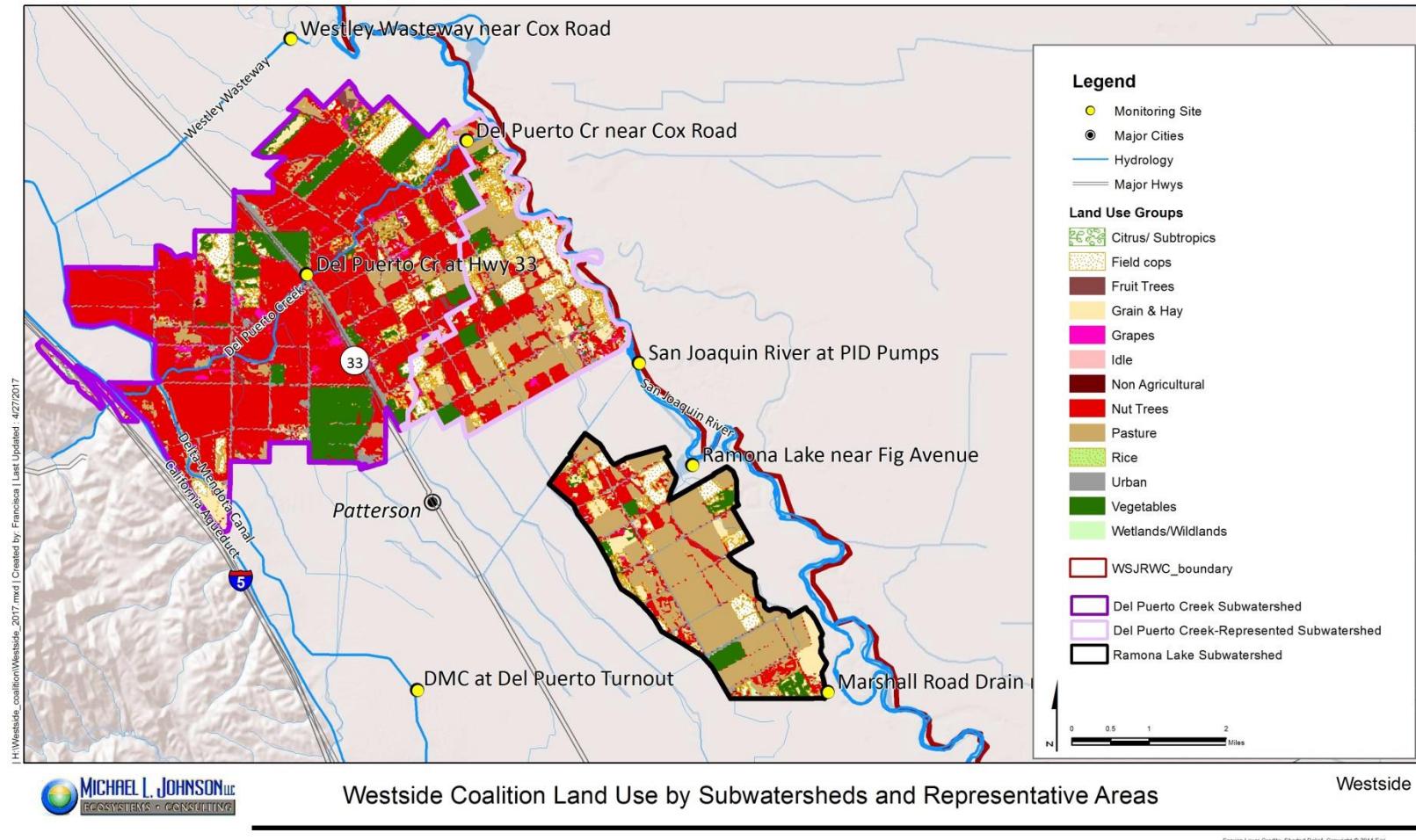
Description of Subwatershed

Del Puerto Creek near Highway 33 (DPCHW) is located in Stanislaus County. The subarea includes 12,500 acres of irrigated area. The primary land irrigated acreage within the subwatershed are alfalfa, almonds, tomatoes and walnuts. Del Puerto Creek is 303(d) listed for pesticides and is a major drainage for the Patterson Subarea and major stormwater runoff collector. Del Puerto Creek near Highway 33 has been monitored for a variety of constituents since 2004. Sediment discharge, sediment toxicity, aquatic toxicity (water flea), and pesticides are measured at this site and discharge is estimated using the float method.

Table 6. Del Puerto Creek at Hwy 33 management plan constituents.

10 YEAR DEADLINE	SUBWATERSHED NAME	CONSTITUENT	LAST EXCEEDANCE
2015	Del Puerto Creek at Hwy 33	Diazinon	2004
2016	Del Puerto Creek at Hwy 33	<i>H. azteca</i>	2013
2017	Del Puerto Creek at Hwy 33	Methyl-Parathion	2006
2021	Del Puerto Creek at Hwy 33	<i>C. dubia</i>	2010

Figure 2. Del Puerto Creek at Hwy 33 subwatershed land use map



Monitoring History Results

The Coalition initiated monitoring at Del Puerto Creek at Hwy 33 in 2004 and has continued to the present.

Table 7. Del Puerto Creek at Hwy 33 monitoring history for management plan constituents.

YEAR	MANAGEMENT PLAN CONSTITUENTS	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
2004	Date:							7/6/2004	8/10/2004				12/29/2004
	<i>Ceriodaphnia dubia</i>							100	100				0
	Diazinon							ND	ND				3.3
	Parathion, methyl							ND	ND				ND
2005	Date:	2/15/2005	3/8/2005	4/12/2005	5/10/2005	6/14/2005	7/12/2005	8/9/2005			10/11/2005		
	<i>Ceriodaphnia dubia</i>	85	95	100	89	100	100	100	100				
	Diazinon	0.037	ND	ND	ND	ND	0.013J	ND					
	Parathion, methyl	ND	ND	ND	ND	ND	0.17	ND					
	<i>Hyalella azteca</i>		0										0
2006	Date:	1/3/2006		3/14/2006	4/4/2006	5/9/2006	6/13/2006	7/11/2006	8/8/2006	9/11/2006			
	<i>Ceriodaphnia dubia</i>	100		100	100	100	100	100	100				
	Diazinon	ND		ND	ND	ND	ND	ND	ND				
	Parathion, methyl	ND		ND	ND	ND	ND	0.098J	ND				
	<i>Hyalella azteca</i>		68.75										1.25
2007	Date:	2/11/2007	3/12/2007		5/8/2007					9/10/2007			
	<i>Ceriodaphnia dubia</i>	95			100								
	Diazinon	<0.004			<0.004								
	Parathion, methyl	<0.075			<0.075								
	<i>Hyalella azteca</i>		91.25										58.75
2008	Date:	1/6/2008											
	<i>Ceriodaphnia dubia</i>	70											
2009	Date:	2/18/2009	3/9/2009										
	<i>Ceriodaphnia dubia</i>	100											
	Diazinon	<0.004											
	Parathion, methyl	<0.075											
	<i>Hyalella azteca</i>		97.5										
2010	Date:	1/25/2010		3/9/2010	4/13/2010					9/13/2010			12/20/2010
	<i>Ceriodaphnia dubia</i>	100		40	100								100
	Diazinon	<0.004		<0.004	<0.004								<0.004
	Parathion, methyl	<0.075		<0.075	<0.075								<0.075
	<i>Hyalella azteca</i>		92.5										81.25
2011	Date:	2/22/2011	3/8/2011	4/12/2011	5/24/2011								
	<i>Ceriodaphnia dubia</i>	100	100	95									
	Diazinon	<0.004	<0.004	<0.004									
	Parathion, methyl	<0.075	<0.075	<0.075	<0.075								
	<i>Hyalella azteca</i>				96.25								
2012	Date:		3/13/2012										
	<i>Ceriodaphnia dubia</i>		100										
	Diazinon		<0.004										
	<i>Hyalella azteca</i>		98.57										

YEAR	MANAGEMENT PLAN CONSTITUENTS	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
2013	Parathion, methyl			<0.075									
	Date:			3/11/2013						9/9/2013			
	Diazinon												
	<i>Hyalella azteca</i>			98.75						58.8			
2014	Date:				4/8/2014	5/13/2014							
	<i>Ceriodaphnia dubia</i>				100								
	Diazinon				<0.004	<0.004							
	Parathion, methyl				<0.075	<0.075							
2015	Date:	1/13/2015	2/10/2015	3/9/2015									
	<i>Ceriodaphnia dubia</i>	100	93.33										
	Diazinon	<0.004	<0.004										
	Parathion, methyl	<0.075	<0.075										
2016	<i>Hyalella azteca</i>			91.25									
	Date:			3/8/2016	4/11/2016					9/12/2016			
	<i>Ceriodaphnia dubia</i>			100									
	Diazinon			<0.004									
2017	Parathion, methyl			<0.075						86.25			
	<i>Hyalella azteca</i>				96.25								
	Date:	1/10/2017											
	<i>Ceriodaphnia dubia</i>	95											
	Diazinon	<0.004											
	Parathion, methyl	<0.075											

DEL PUERTO CREEK NEAR COX ROAD

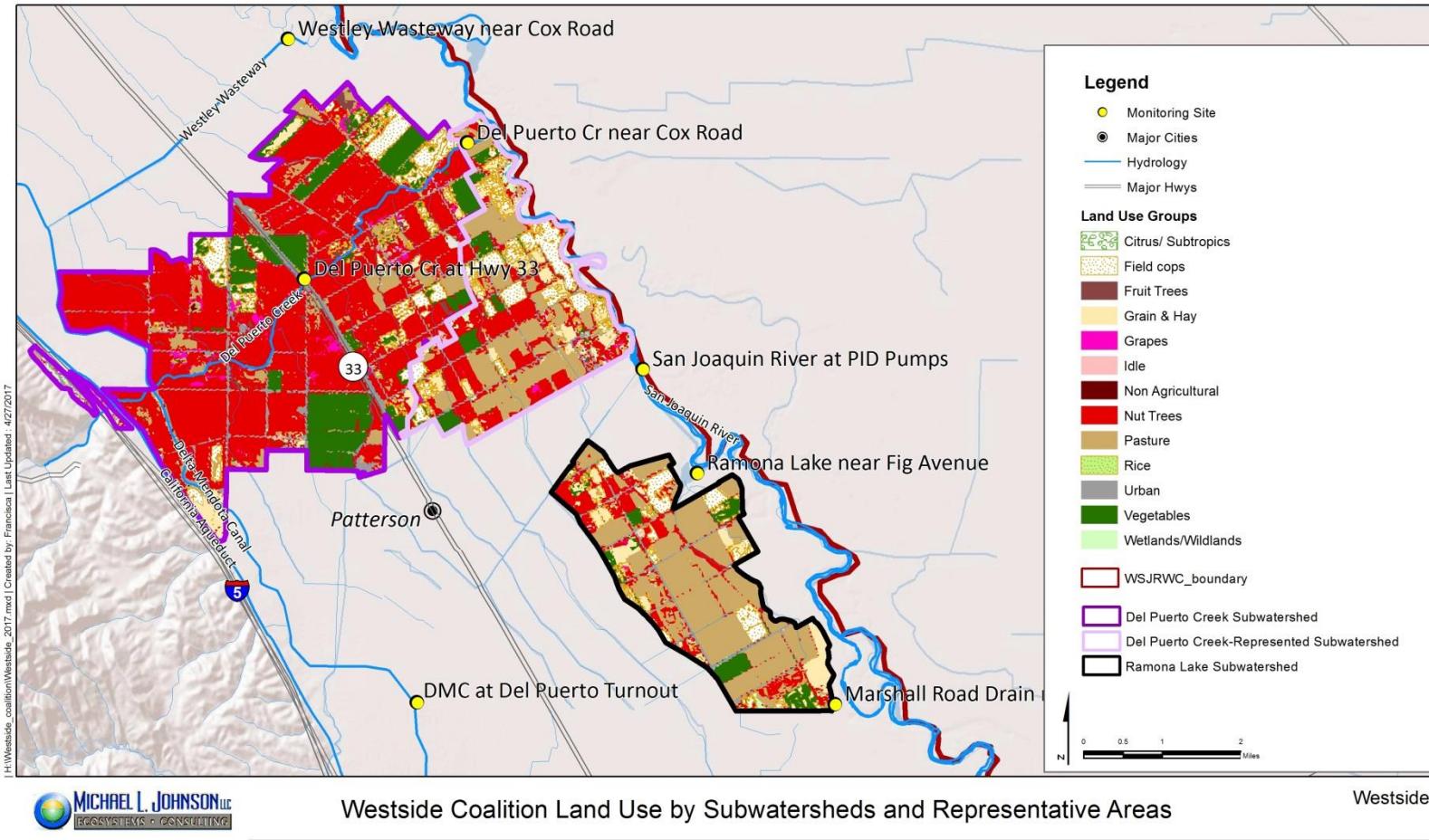
Description of Subwatershed

Del Puerto Creek near Cox Road (DPCCR) is located in Stanislaus County. The subarea includes 12,500 acres of irrigated area. The primary irrigated acreage within the subwatershed includes alfalfa, almonds, tomatoes and walnuts. Del Puerto Creek is 303(d) listed for pesticides and is a major drainage for the Patterson Subarea and major stormwater runoff collector. Del Puerto Creek near Cox Road has been monitored for a variety of constituents since 2004. Sediment discharge, sediment toxicity, aquatic toxicity (water flea), and pesticides are measured at this site.

Table 8. Del Puerto Creek near Cox Road management plan constituents.

10 YEAR DEADLINE	SUBWATERSHED NAME	CONSTITUENT	LAST EXCEEDANCE
2016	Del Puerto Creek near Cox Road	Chlorpyrifos	2015
2017	Del Puerto Creek near Cox Road	<i>H. azteca</i>	2016
2017	Del Puerto Creek near Cox Road	DDE	2016
2019	Del Puerto Creek near Cox Road	DDT	2012
2024	Del Puerto Creek near Cox Road	<i>C. dubia</i>	2013

Figure 3. Del Puerto Creek near Cox Road subwatershed land use map



Monitoring History Results

The Coalition initiated monitoring at Del Puerto Creek near Cox Road in 2004 and has continued to the present.

Table 9. Del Puerto Creek near Cox Road monitoring history for management plan constituents.

MONITORING YEAR	MANAGEMENT PLAN CONSTITUENTS	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	Nov	DEC
2004	Date:							7/6/2004	8/10/2004	9/13/2004			
	<i>Ceriodaphnia dubia</i>							100	0				
	Chlorpyrifos							ND	0.32				
	<i>Hyalella azteca</i>									93.8			
2005	Date:		3/8/2005	4/12/2005	5/10/2005	6/14/2005	7/12/2005	8/9/2005			10/11/2005		
	<i>Ceriodaphnia dubia</i>		100	100	95	100	100	90					
	Chlorpyrifos		ND	ND	ND	ND	0.073	0.07					
	<i>Hyalella azteca</i>									1			
2006	Date:	1/3/2006		3/14/2006	4/5/2006	5/9/2006	6/13/2006	7/11/2006	8/8/2006	9/11/2006			
	<i>Ceriodaphnia dubia</i>	100		100	100	100	100	100	100				
	Chlorpyrifos	ND		ND	ND	ND	ND	ND	0.033				
	DDE							0.02	0.0067				
2007	<i>Hyalella azteca</i>			0						55			
	Date:	2/11/2007	3/13/2007	4/10/2007	5/8/2007	6/12/2007	7/10/2007	8/14/2007	9/10/2007				
	<i>Ceriodaphnia dubia</i>	100	100	100	100	100	100	90					
	Chlorpyrifos	<0.0026	<0.0026	<0.0026	0.079	<0.0026	<0.0026	<0.0026	<0.0026				
	DDE(p,p')	0.013	<0.004	<0.004	0.0044	0.016	0.005	0.0085					
	DDT(p,p')	0.011	<0.007	<0.007	<0.007	<0.007	<0.007	<0.007	<0.007				
2008	<i>Hyalella azteca</i>			81.25						93.75			
	Date:	1/6/2008		4/8/2008	5/13/2008	6/10/2008	7/8/2008	8/12/2008	9/9/2008				
	<i>Ceriodaphnia dubia</i>	90		100	100	100	95	100					
	Chlorpyrifos			0.0067	<0.0026	<0.0026	0.013	<0.003					
	DDE(p,p')			0.0059	<0.004	0.0067	0.014	0.011					
	DDT(p,p')			<0.007	<0.007	<0.007	0.0086	<0.007					
2009	<i>Hyalella azteca</i>									62.5			
	Date:	2/18/2009	3/9/2009	4/14/2009	5/12/2009	6/9/2009		8/11/2009	9/14/2009	10/15/2009			
	<i>Ceriodaphnia dubia</i>	100		100	100	100		100		100			
	Chlorpyrifos	0.013		0.0095	<0.0026	<0.0026		<0.0026		<0.0026			
	DDE(p,p')	0.0047		<0.004	0.0042	0.0056		0.0097		<0.004			
	DDT(p,p')	<0.007		<0.007	<0.007	<0.007		<0.007		<0.007			
2010	<i>Hyalella azteca</i>			97.5						13.75			
	Date:	1/25/2010		3/9/2010	4/13/2010	5/11/2010	6/8/2010	7/14/2010	8/10/2010	9/13/2010			12/20/2010
	<i>Ceriodaphnia dubia</i>	95		95	100	100	95	95	100				100
	Chlorpyrifos	<0.0026		<0.0026	<0.0026	0.018	<0.0026	0.063	<0.0026				<0.0026
	DDE(p,p')	<0.004		<0.004	<0.004	<0.004	0.0073	0.011	0.01				0.0096
	DDT(p,p')	<0.007		<0.007	<0.007	<0.007	<0.007	<0.007	<0.007				<0.007
2011	<i>Hyalella azteca</i>			77.5						0			
	Date:	2/22/2011		4/12/2011	5/10/2011	6/14/2011	7/12/2011	8/9/2011	9/13/2011	10/11/2011	11/8/2011	12/13/2011	
	<i>Ceriodaphnia dubia</i>	95		100	100	100	100	95	95	95	95	95	85
	Chlorpyrifos	0.023		<0.0026	0.018	0.38	<0.0026	<0.0026	<0.0026	<0.0026	<0.0026	<0.0026	<0.0026

MONITORING YEAR	MANAGEMENT PLAN CONSTITUENTS	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	Nov	DEC
	DDE(p,p')	<0.004		0.0043	0.0044	0.0086	0.011	<0.004	0.0061	<0.004	<0.004	<0.004	
	DDT(p,p')	<0.007		<0.007	<0.007	<0.007	<0.007	<0.007	<0.007	<0.007	<0.007	<0.007	<0.007
	<i>Hualella azteca</i>				81.25					88.8			
2012	Date:	1/11/2012		3/13/2012	4/10/2012	5/8/2012	6/12/2012	7/10/2012	8/14/2012	9/10/2012			
	<i>Ceriodaphnia dubia</i>	100		100	100	5	100	100	100				
	Chlorpyrifos	<0.0026		<0.0026	<0.0026	<0.0026	<0.0026	<0.0026	<0.0026	<0.0026			
	DDE(p,p')	0.009		0.015	<0.004	<0.004	0.0059	<0.004	<0.004				
	DDT(p,p')	<0.007		0.007	<0.007	<0.007	<0.007	<0.007	<0.007				
	<i>Hualella azteca</i>			97.5						93.75			
2013	Date:		3/12/2013	4/9/2013	5/14/2013	6/11/2013	7/9/2013	8/13/2013	9/9/2013				
	<i>Ceriodaphnia dubia</i>		95	100	0	10	95	100					
	Chlorpyrifos		<0.0026	<0.0026	<0.0026	<0.0026	<0.0026	<0.0026	<0.0026				
	DDE(p,p')		<0.004	<0.004	0.018	<0.004	0.0071	<0.004					
	DDT(p,p')		<0.007	<0.007	<0.007	<0.007	<0.007	<0.007	<0.007				
	<i>Hualella azteca</i>			96.25						90			
2014	Date:		2/10/2014	3/3/2014	4/8/2014	5/13/2014	6/10/2014	7/8/2014	8/12/2014	9/9/2014	10/14/2014		12/4/2014
	<i>Ceriodaphnia dubia</i>		100	100	100	100	95	95		100	100		100
	Chlorpyrifos		<0.0026	0.091	<0.0026	<0.0026	<0.0026	<0.0026	<0.0026	0.094	<0.0026		<0.0026
	DDE(p,p')		<0.004	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004		0.0054
	DDT(p,p')		<0.007	<0.007	<0.007	<0.007	<0.007	<0.007	<0.007	<0.007	<0.007		<0.007
	<i>Hualella azteca</i>			23.75						86.25			
2015	Date:		2/10/2015	3/10/2015	4/14/2015	5/12/2015	6/9/2015	7/14/2015		9/15/2015			
	<i>Ceriodaphnia dubia</i>		100	100	100	100	100	100		100			
	Chlorpyrifos		0.021	0.027	<0.0026	<0.0026	<0.0026	<0.0026		<0.0026			
	DDE(p,p')		<0.004	<0.004	<0.004	<0.004	<0.004	<0.004		<0.004			
	DDT(p,p')		<0.007	<0.007	<0.007	<0.007	<0.007	<0.007		<0.007			
	<i>Hualella azteca</i>			100						56.3			
2016	Date:			3/8/2016	4/12/2016	5/10/2016	6/14/2016	7/12/2016	8/9/2016	9/13/2016	10/11/2016		
	<i>Ceriodaphnia dubia</i>			100	100	100	100	100	100				
	Chlorpyrifos			<0.0026	<0.0026	<0.0026	<0.0026	<0.0026	<0.0026	<0.0026	<0.0026		
	DDE(p,p')			0.0050	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004			
	DDT(p,p')			<0.007	<0.007	<0.007	<0.007	<0.007	<0.007	<0.007			
	<i>Hualella azteca</i>				82.5					0			
2017	Date:			3/14/2017	4/11/2017	5/9/2017	6/13/2017						
	<i>Ceriodaphnia dubia</i>			100	100	100	100						
	Chlorpyrifos			<0.0026	<0.0026	<0.0026							
	DDE(p,p')			<0.004	<0.004	<0.004							
	DDT(p,p')			<0.007	<0.007	<0.007							
<i>Hualella azteca</i>				98.75									

HOSPITAL CREEK AT RIVER ROAD

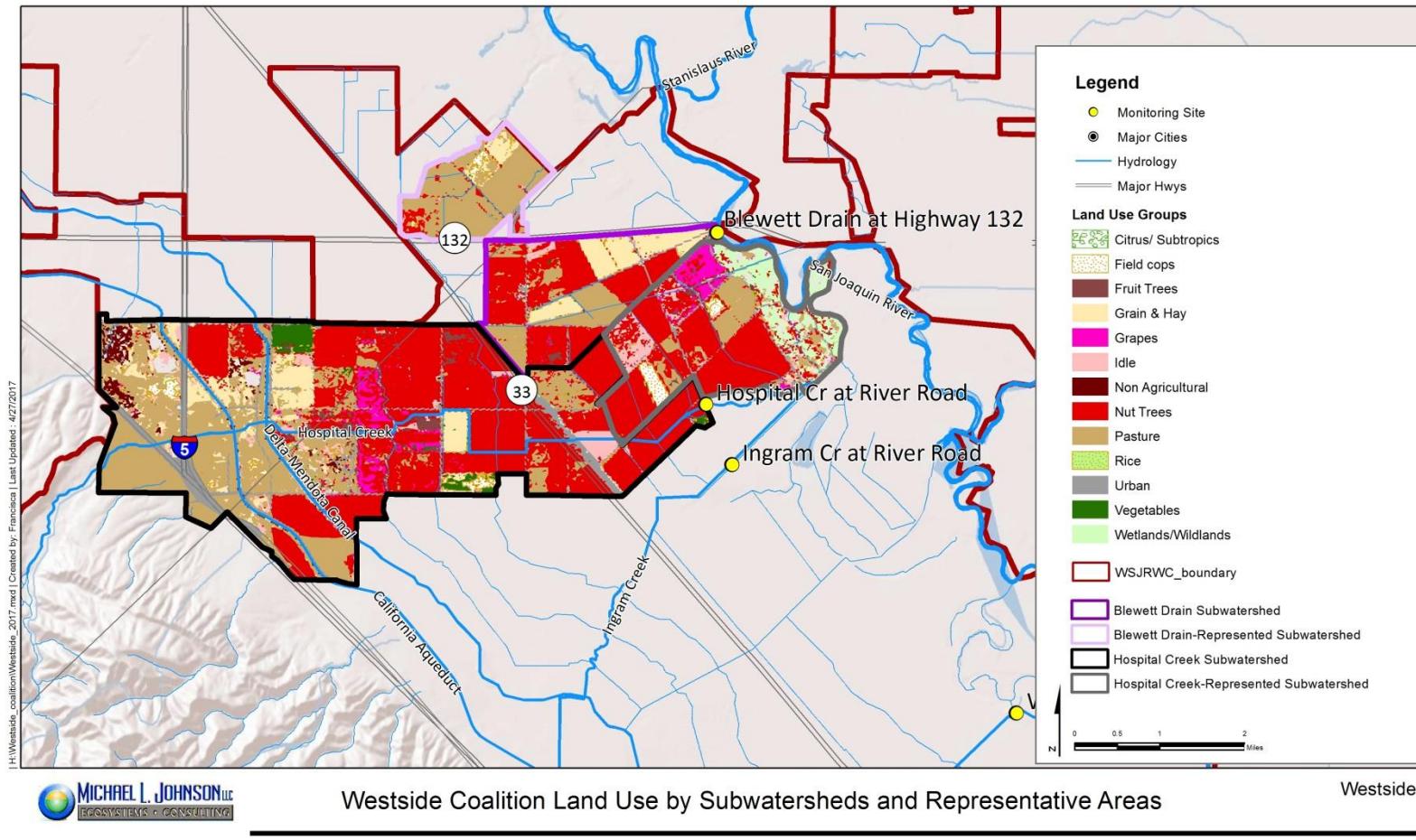
Description of Subwatershed

Hospital Creek at River Road (HCARR) is a significant drainage for the Patterson Subarea of the WSJRWRC region and has been monitored since July 2004 for a variety of constituents. The site is located in Stanislaus and San Joaquin Counties. The subarea includes 9000 acres of irrigated area. The primary irrigated acreage within the subwatershed includes almonds and walnuts. Sediment discharge, sediment toxicity, aquatic toxicity (water flea), and pesticides have been measured at this site. Discharge at this site is measured by a rectangular weir.

Table 10. Hospital Creek at River Road management plan constituents.

10 YEAR DEADLINE	SUBWATERSHED NAME	CONSTITUENT	LAST EXCEEDANCE
2016	Hospital Creek at River Road	<i>H. azteca</i>	2016
2016	Hospital Creek at River Road	<i>S. capricornutum</i>	2014
2017	Hospital Creek at River Road	<i>C. dubia</i>	2015
2017	Hospital Creek at River Road	Methyl-Parathion	2008
2017	Hospital Creek at River Road	DDE	2017
2018	Hospital Creek at River Road	Chlorpyrifos	2016
2018	Hospital Creek at River Road	DDT	2017
2018	Hospital Creek at River Road	Diuron	2010
2024	Hospital Creek at River Road	Diazinon	2013

Figure 4. Hospital Creek at River Road subwatershed land use map



Monitoring History Results

The Coalition initiated monitoring at Hospital Creek at River Road in 2004 and has continued to the present.

Table 11. Hospital Creek at River Road monitoring history for management plan constituents.

MONITORING YEAR	MANAGEMENT PLAN CONSTITUENTS	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
2004	Date							7/6/2004	8/10/2004	9/13/2004			12/29/2004
	<i>Ceriodaphnia dubia</i>							95	100				55
	Chlorpyrifos							<0.05	<0.05				<0.02
	Diazinon							0.07	ND				0.076J
	Parathion, methyl							0.03J	ND				ND
	<i>Selenastrum capricornutum</i>							1149000	1085750				103000
2005	<i>Hyalella azteca</i>										85		
	Date	2/15/2005	3/7/2005		5/10/2005	6/14/2005	7/12/2005	8/9/2005		10/11/2005			
	<i>Ceriodaphnia dubia</i>	90			90	100	100	100					
	Chlorpyrifos	<0.02			<0.02	<0.02	0.041J	<0.02					
	Diazinon	ND			ND	ND	ND	ND					
	Parathion, methyl	ND			ND	ND	ND	ND					
2006	<i>Selenastrum capricornutum</i>	213000			1842000	2910000	2010000	1830000					
	<i>Hyalella azteca</i>		16								0		
	Date	1/3/2006	3/13/2006	4/5/2006	5/9/2006	6/13/2006	7/11/2006	8/8/2006	9/11/2006				
	<i>Ceriodaphnia dubia</i>	0		100	100	100	95	100					
	Chlorpyrifos	<0.02		0.012J	<0.02	<0.02	<0.02	<0.02					
	Diazinon	ND		ND	ND	ND	0.062Y	ND					
2007	Diuron							ND	ND				
	Parathion, methyl	0.077J			ND	ND	ND	ND	ND				
	<i>Selenastrum capricornutum</i>	1290000		2000000	2657000	1530000	1812500	1925250					
	<i>Hyalella azteca</i>		82.5								1.25		
	Date	2/11/2007	3/13/2007	4/10/2007	5/8/2007	6/12/2007	7/10/2007	8/14/2007	9/10/2007				
	<i>Ceriodaphnia dubia</i>	95	100	100	100	100	0	100					
2008	Chlorpyrifos	<0.0026	<0.0026	<0.0026	0.043	0.055	0.23	0.024					
	DDE(p,p')	0.035	0.016	0.07	0.026	0.014	0.092	0.063					
	DDT(p,p')	0.01	0.0091	0.034	0.012	0.0072	0.033	<0.007					
	Diazinon	0.07	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004				
	Diuron	18	2.6	0.48	<0.20	0.26	<0.20	<0.20	<0.20				
	Parathion, methyl	0.48	<0.075	<0.075	<0.075	<0.075	<0.075	<0.075	<0.075				
2008	<i>Selenastrum capricornutum</i>	495750	1016750	1946250	2027000	1154850	2000000	4400000					
	<i>Hyalella azteca</i>		0								16.25		
	Date	1/5/2008	3/10/2008	4/8/2008	5/13/2008	6/10/2008	7/8/2008	8/12/2008	9/9/2008				
	<i>Ceriodaphnia dubia</i>	0		100	95	100	100	100	100				
	Chlorpyrifos	0.039			0.0056	<0.0026	<0.0026	0.048	0.22				
	DDE(p,p')	0.02			0.012	0.018	0.027	0.01	0.054				
2008	DDT(p,p')	<0.007			<0.007	<0.007	0.01	<0.007	0.011				
	Diazinon	0.068			<0.004	<0.004	0.11	<0.004	<0.004				
	Diuron	0.22			15	0.23	0.31	<0.20	<0.20				
	Parathion, methyl	0.59			<0.075	<0.075	<0.075	0.18	<0.075				

MONITORING YEAR	MANAGEMENT PLAN CONSTITUENTS	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
	<i>Selenastrum capricornutum</i>	67800				3690000							
	<i>Hyalella azteca</i>			80							25		
2009	Date	2/13/2009	3/9/2009	4/14/2009	5/12/2009		7/14/2009	8/11/2009	9/14/2009	10/14/2009			
	<i>Ceriodaphnia dubia</i>	0		95	45		95	95			0		
	Chlorpyrifos	0.57		<0.0026	0.034		0.21	0.062			0.078		
	DDE(p,p')	0.04		<0.004	0.0091		0.02	0.041			0.043		
	DDT(p,p')	<0.007		<0.007	<0.007		<0.007	<0.007			0.013		
	Diazinon	<0.004		<0.004	<0.004		<0.004	<0.004			<0.004		
	Diuron	3.3		0.37	<0.20		<0.20	<0.20			0.52		
	Parathion, methyl	<0.075		<0.075	<0.075		<0.075	<0.075			<0.075		
	<i>Selenastrum capricornutum</i>	2094000									2713000		
	<i>Hyalella azteca</i>			0							10		
2010	Date	1/25/2010	3/9/2010	4/13/2010	5/11/2010	6/8/2010	7/14/2010	8/10/2010	9/13/2010				12/21/2010
	<i>Ceriodaphnia dubia</i>	0		100	90	100	95	100					40
	Chlorpyrifos	0.22		<0.0026	0.045	<0.0026	0.24	<0.0026					<0.0026
	DDE(p,p')	0.014			0.0042	0.011	0.026	0.02	0.0083				0.017
	DDT(p,p')	<0.007		<0.007	<0.007	0.0091	<0.007	<0.007					<0.007
	Diazinon	<0.004		<0.004	<0.004	<0.004	<0.004	<0.004					<0.004
	Diuron	5.1		0.39	<0.20	1.5	0.55	<0.20					27
	Parathion, methyl	<0.075		<0.075	<0.075	<0.075	<0.075	<0.075					<0.075
	<i>Selenastrum capricornutum</i>	2455000											21900
	<i>Hyalella azteca</i>			77.5							0		
2011	Date			4/12/2011	5/24/2011		7/12/2011	8/9/2011	9/13/2011				11/8/2011
	<i>Ceriodaphnia dubia</i>			100			100	95	100				100
	Chlorpyrifos			<0.0026			<0.0026	<0.0026	0.27				<0.0026
	DDE(p,p')				0.0051			0.018	0.10	<0.004			<0.004
	DDT(p,p')			<0.007			<0.007	<0.007	<0.007	<0.007			<0.007
	Diazinon			<0.004			<0.004	<0.004	<0.004	<0.004			<0.004
	Diuron			<0.20			<0.20	<0.20	<0.20	<0.20			<0.20
	Parathion, methyl			<0.075			<0.075	<0.075	<0.075	<0.075			<0.075
	<i>Selenastrum capricornutum</i>			4208000			3990000	4243000	4865000	4448000			
	<i>Hyalella azteca</i>				8.75						20		
2012	Date	2/14/2012	3/12/2012	4/10/2012	5/8/2012	6/12/2012	7/10/2012	8/14/2012	9/10/2012				
	<i>Ceriodaphnia dubia</i>		100		100	100	95	100					
	Chlorpyrifos	<0.0026			0.071	<0.0026	<0.0026	<0.0026	<0.0026				
	DDE(p,p')	0.008											
	DDT(p,p')	<0.007											
	Diazinon	<0.004		<0.004	<0.004	<0.004	<0.004	<0.004	<0.004				
	Diuron	1.8		1.7	0.48	0.20	<0.20	0.44					
	Parathion, methyl	<0.075		<0.075	<0.075	<0.075	<0.075	<0.075	<0.075				
2013	<i>Selenastrum capricornutum</i>	2800000		3065000	3905000	3040000	4090000	4817000					
	<i>Hyalella azteca</i>			81.25							2.5		
2013	Date		3/11/2013		5/14/2013	6/11/2013	7/9/2013		9/9/2013				

MONITORING YEAR	MANAGEMENT PLAN CONSTITUENTS	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
2014	<i>Ceriodaphnia dubia</i>					100	95	100					
	Chlorpyrifos					0.27	0.055	<0.0026					
	Diazinon					0.25	0.22	<0.004					
	Diuron					0.81	<0.20	0.81					
	Parathion, methyl					<0.075	<0.075	<0.075					
	<i>Selenastrum capricornutum</i>					7133000	4633000	5690000					
	<i>Hyalella azteca</i>		96.25							0			
	Date		3/10/2014	4/8/2014	5/13/2014	6/10/2014	7/8/2014	8/12/2014	9/8/2014				12/4/2014
	<i>Ceriodaphnia dubia</i>				100								20
	Chlorpyrifos				<0.0026	<0.0026	<0.0026	<0.0026	<0.0026				<0.0026
2015	DDE(p,p')				<0.004	<0.004	0.0054	<0.004	0.011				0.014
	DDT(p,p')				<0.007	<0.007	<0.007	<0.007	<0.007				<0.007
	Diazinon				<0.004	<0.004	<0.004	<0.004	<0.004				<0.004
	Diuron				<0.20	<0.20	<0.20	<0.20	<0.20				0.84
	Parathion, methyl				<0.075	<0.075	<0.075	<0.075	<0.075				<0.075
	<i>Selenastrum capricornutum</i>				4908000								1373000
	<i>Hyalella azteca</i>		87.5							2.5			
	Date	2/10/2015	3/10/2015	4/14/2015	5/12/2015		7/14/2015	8/11/2015	9/15/2015				
	<i>Ceriodaphnia dubia</i>	0	100	95	100		100	95	100				
	Chlorpyrifos	0.37	0.016	<0.0026	<0.0026		<0.0026	<0.0026	<0.0026				
2016	DDE(p,p')	0.013	<0.004	<0.004	0.011		0.014	<0.004	<0.004				
	DDT(p,p')	<0.007	<0.007	<0.007	<0.007		<0.007	<0.007	<0.007				
	Diazinon	<0.004	<0.004	<0.004	<0.004		<0.004	<0.004	<0.004				
	Diuron	0.56	0.25	<0.20	<0.20		<0.20	<0.20	<0.20				
	Parathion, methyl	<0.075	<0.075	<0.075	<0.075		<0.075	<0.075	<0.075				
	<i>Selenastrum capricornutum</i>	5425000	4893000	5690000	4908000		2790000	6840000	6318000				
	<i>Hyalella azteca</i>		27.5							0			
	Date		3/8/2016	4/11/2016	5/10/2016	6/14/2016	7/12/2016	8/9/2016	9/12/2016				11/1/2016
	<i>Ceriodaphnia dubia</i>		100		100	100	100	100					
	Chlorpyrifos		<0.0026		<0.0026	<0.0026	<0.0026	<0.0026	<0.0026				0.018
2017	DDE(p,p')	0.023		<0.004	<0.004	0.049	<0.004						0.0054
	DDT(p,p')	<0.007		<0.007	<0.007	<0.035	<0.007						<0.007
	Diazinon	<0.004		<0.004	<0.004	<0.004	<0.004	<0.004					<0.004
	Diuron		<0.20		<0.20	<0.20	<0.20	<0.20					<0.20
	Parathion, methyl		<0.075		<0.075	<0.075	<0.075	<0.075					<0.075
	<i>Selenastrum capricornutum</i>		4758000		6145000	5850000							
	<i>Hyalella azteca</i>			0						57.5			
	Date	1/10/2017		3/14/2017	4/11/2017	5/9/2017	6/13/2017						
2017	<i>Ceriodaphnia dubia</i>	100		90	95	100	100						
	Chlorpyrifos		<0.0026	<0.0026	<0.0026								
	DDE(p,p')	0.0044	0.088	<0.004									
	DDT(p,p')		<0.007	0.010	<0.007								
	Diazinon		<0.004	<0.004	<0.004	<0.004							

MONITORING YEAR	MANAGEMENT PLAN CONSTITUENTS	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
	Diuron			<0.20	<0.20	<0.20							
	Parathion, methyl			<0.075	<0.075	<0.075							
	<i>Selenastrum capricornutum</i>	5015000		5510000	5865000	5263000	5070000						

INGRAM CREEK AT RIVER ROAD

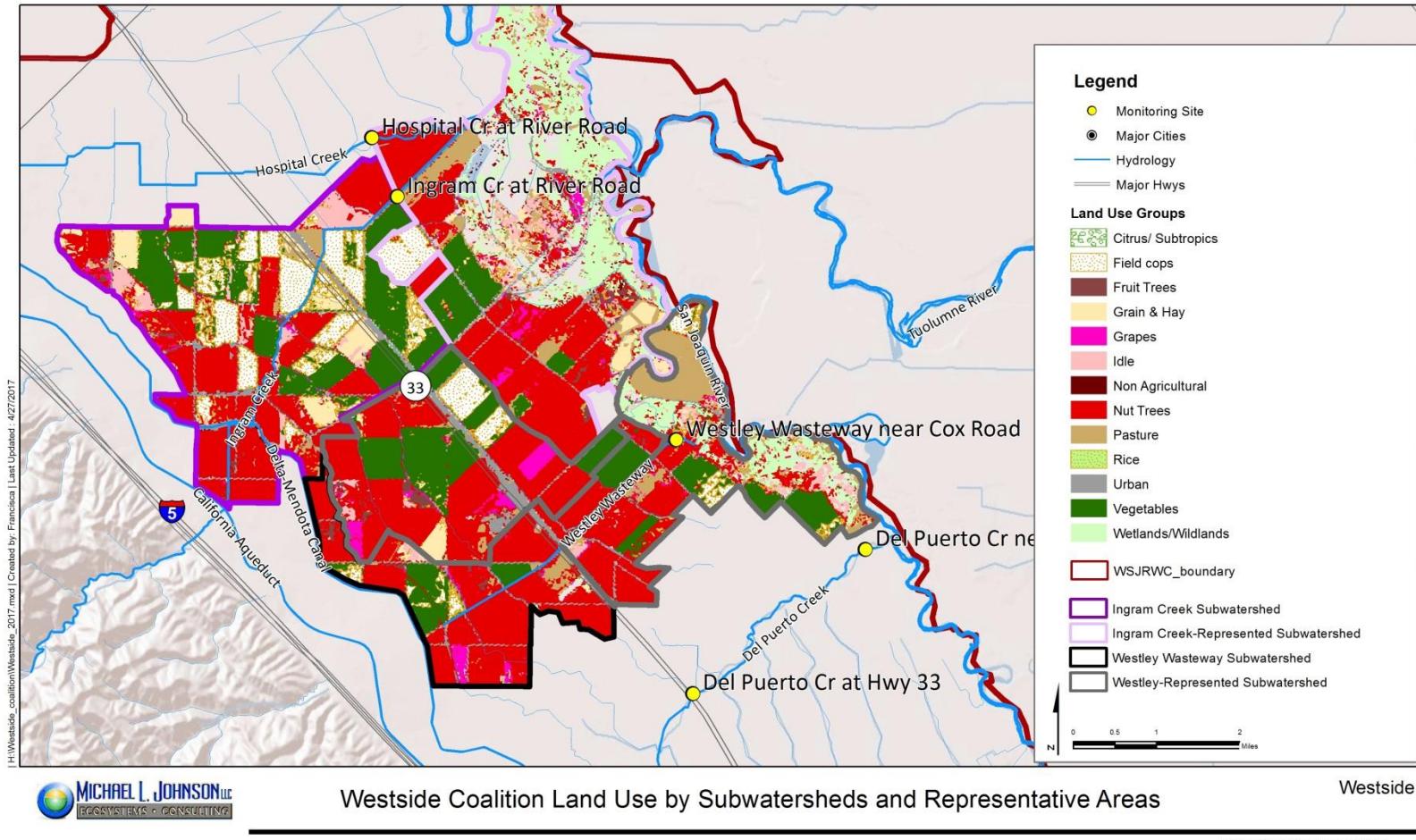
Description of Subwatershed

Ingram Creek at River Road (ICARR) is a significant drainage for the Patterson Subarea of the WSJRWC and has been monitored since July 2004 for a variety of constituents. The site is located in Stanislaus County. The subarea includes 10,300 acres of irrigated land and the primary crops within the subwatershed includes almonds, tomatoes, and dry beans. Sediment discharge, sediment toxicity, aquatic toxicity (water flea), and pesticides have been measured at this site. It is on the 303(d) list for pesticides. Discharge at this site is measured by a rectangular weir.

Table 12. Ingram Creek at River Road management plan constituents.

10 YEAR DEADLINE	SUBWATERSHED NAME	CONSTITUENT	LAST EXCEEDANCE
2016	Ingram Creek at River Road	Chlorpyrifos	2015
2016	Ingram Creek at River Road	Dimethoate	2013
2016	Ingram Creek at River Road	<i>H. azteca</i>	2017
2016	Ingram Creek at River Road	<i>S. capricornutum</i>	2013
2017	Ingram Creek at River Road	DDT	2014
2017	Ingram Creek at River Road	DDE	2017
2018	Ingram Creek at River Road	Malathion	2011
2018	Ingram Creek at River Road	Simazine	2013
2019	Ingram Creek at River Road	Diuron	2013
2019	Ingram Creek at River Road	Methyl-Parathion	2008
2022	Ingram Creek at River Road	Diazinon	2013
2024	Ingram Creek at River Road	<i>C. dubia</i>	2015

Figure 5. Ingram Creek at River Road subwatershed land use map



Monitoring History Results

The Coalition initiated monitoring at Ingram Creek at River Road in 2004 and has continued to the present.

Table 13. Ingram Creek at River Road monitoring history for management plan constituents.

MONITORING YEAR	MANAGEMENT PLAN CONSTITUENTS	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
2004	Date							7/6/2004	8/10/2004	9/13/2004			12/29/2004
	<i>Ceriodaphnia dubia</i>							95	100				100
	Chlorpyrifos							0.02J	ND				ND
	Diazinon							ND	ND				0.077Y
	Dimethoate							1.8E	0.62Y				0.13J
	Malathion							0.04J	ND				ND
	Parathion, methyl							ND	ND				ND
	<i>Selenastrum capricornutum</i>							1360750	1120750				42300
	Simazine												7.7
	<i>Hyalella azteca</i>										0		
2005	Date	2/15/2005	3/8/2005	4/12/2005	5/10/2005	6/14/2005	7/12/2005	8/9/2005			10/11/2005		
	<i>Ceriodaphnia dubia</i>	95	90	100	80	100	100	100					
	Chlorpyrifos	ND	ND	ND	ND	0.15	0.026J	ND					
	Diazinon	ND	ND	ND	ND	ND	ND	ND	ND				
	Dimethoate	ND	ND	ND	ND	0.83	0.27	1.3					
	Malathion	ND	ND	ND	ND	ND	ND	ND	ND				
	Parathion, methyl	ND	ND	ND	ND	ND	ND	ND	ND				
	<i>Selenastrum capricornutum</i>		228000	1240000	2600000	1862000	3050000	1830000	2130000				
	Simazine		1.5										
	<i>Hyalella azteca</i>			32.5							0		
2006	Date	1/3/2006		3/13/2006	4/4/2006	5/9/2006	6/13/2006	7/11/2006	8/8/2006	9/11/2006			
	<i>Ceriodaphnia dubia</i>	95			70	100	100	95	100				
	Chlorpyrifos	ND			ND	ND	ND	0.018J	0.017J				
	DDE							0.079	0.066				
	DDT							0.032	0.026				
	Diazinon	ND			ND	ND	ND	ND	ND				
	Dimethoate	ND			ND	ND	ND	1.4	1.7				
	Diuron							ND	ND				
	Malathion	ND			ND	ND	ND	ND	ND				
	Parathion, methyl	ND			ND	ND	ND	0.17	ND				
2007	<i>Selenastrum capricornutum</i>	2390000			2420000	2122000	1640000	1017250	882500				
	Simazine	<0.08			0.94			<0.08	<0.08				
	<i>Hyalella azteca</i>			23.75						0			
	Date	2/11/2007	3/13/2007	4/10/2007	5/8/2007	6/12/2007	7/10/2007	8/14/2007	9/10/2007				
	<i>Ceriodaphnia dubia</i>	100	100	100	100	100	100	95					
	Chlorpyrifos	<0.0026	<0.0026	0.038	<0.0026	<0.0026	0.087	0.12					
	DDE(p,p')	0.025	0.014	0.024	0.051	0.052	0.18	0.13					
	DDT(p,p')	0.011	<0.007	0.012	0.029	0.025	0.058	0.034					
	Diazinon	0.048	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004				
	Dimethoate		<0.080	<0.080	0.12	0.086	0.16	0.32	1.3				

MONITORING YEAR	MANAGEMENT PLAN CONSTITUENTS	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	Nov	DEC
2008	Diuron		43	0.78	0.8	0.38	0.44	<0.2	<0.2				
	Malathion		<0.050	<0.050	<0.050	<0.050	0.092	0.073	<0.050				
	Parathion, methyl		<0.075	<0.075	<0.075	<0.075	<0.075	<0.075	<0.075	<0.075			
	<i>Selenastrum capricornutum</i>	24500	1211000	2436000	2047000	1397200	1600000	3950000					
	Simazine		10	0.44	<0.08	<0.08	<0.08	<0.08	<0.08				
	<i>Hyalella azteca</i>			0						0			
	Date	1/5/2008		3/10/2008	4/8/2008	5/13/2008	6/10/2008	7/8/2008	8/12/2008	9/9/2008			
	<i>Ceriodaphnia dubia</i>	100			100	100	100	90	95				
	Chlorpyrifos	0.013			0.0087	<0.0026	<0.0026	0.023	<0.0026				
	DDE(p,p')	0.021			0.022	0.021	0.012	0.019	0.059				
	DDT(p,p')	0.0086			0.0084	<0.007	<0.007	<0.007	0.024				
	Diazinon	0.055			<0.004	<0.004	<0.004	<0.004	<0.004				
	Dimethoate	<0.080			<0.080	<0.08	<0.080	0.56	4.0				
	Diuron	2.9			0.37	0.35	0.2	<0.2	<0.20				
	Malathion	<0.050			<0.050	<0.05	<0.050	<0.050	<0.050				
	Parathion, methyl	<0.075			<0.075	<0.075	0.22	<0.075	<0.075				
	<i>Selenastrum capricornutum</i>	278000											
	Simazine	20			<0.08	<0.08	<0.08	<0.08	<0.08				
	<i>Hyalella azteca</i>			2.5						0			
2009	Date	2/13/2009	3/9/2009	4/14/2009	5/12/2009	6/9/2009	7/14/2009	8/11/2009	9/14/2009	10/14/2009			
	<i>Ceriodaphnia dubia</i>	100			100	0	100	100	100				
	Chlorpyrifos	0.013			0.013	0.018	<0.0026	<0.0026	<0.0026			0.053	
	DDE(p,p')	0.01			<0.004	0.022	0.0059	0.017	0.065			0.035	
	DDT(p,p')	<0.007			<0.007	<0.007	<0.007	<0.007	<0.007			<0.007	
	Diazinon	<0.004			<0.004	<0.004	<0.004	<0.004	<0.004			<0.004	
	Dimethoate	<0.080			0.12	<0.080	<0.080	3.1	1.9			0.33	
	Diuron	2.1			0.33	<0.20	<0.20	0.45	0.30			<0.20	
	Malathion	<0.050			<0.050	<0.050	<0.050	<0.050	<0.050			<0.050	
	Parathion, methyl	<0.075			<0.075	<0.075	<0.075	<0.075	<0.075			<0.075	
	<i>Selenastrum capricornutum</i>	2581000										2853000	
	Simazine	0.24			<0.08	<0.08	<0.08	<0.08	<0.08			0.40	
2010	<i>Hyalella azteca</i>			18.75						0			
	Date	1/25/2010		3/9/2010	4/13/2010	5/11/2010	6/8/2010	7/14/2010	8/10/2010	9/13/2010			12/21/2010
	<i>Ceriodaphnia dubia</i>	100			100	100	95	95	100				100
	Chlorpyrifos	0.011			<0.0026	<0.0026	0.022	<0.0026	0.24	<0.0026			<0.0026
	DDE(p,p')	0.0062			0.0072	0.0078	0.038	0.017	0.018	0.028			0.012
	DDT(p,p')	<0.007			<0.007	<0.007	0.011	<0.007	<0.007	0.0092			<0.007
	Diazinon	<0.004			<0.004	<0.004	<0.004	<0.004	<0.004	<0.004			<0.004
	Dimethoate	<0.080			<0.080	<0.080	<0.080	<0.080	0.53	1.7			<0.080
	Diuron	0.86		0.21	2.9	0.49	0.20	<0.20	<0.20				8.5
	Malathion	<0.050		<0.050	<0.050	<0.050	<0.050	<0.050	<0.050				<0.050
	Parathion, methyl	<0.075		<0.075	<0.075	<0.075	<0.075	<0.075	<0.075				<0.075
	<i>Selenastrum capricornutum</i>	4855000											550500

MONITORING YEAR	MANAGEMENT PLAN CONSTITUENTS	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	Nov	DEC
	Simazine	<0.08		<0.08	<0.08	<0.08	<0.08	<0.08	<0.08				3.3
	<i>Hyalella azteca</i>			35						0			
	Date		3/23/2011	4/12/2011	5/10/2011	6/14/2011	7/12/2011	8/9/2011	9/13/2011	10/11/2011			12/13/2011
2011	<i>Ceriodaphnia dubia</i>			0	100	100	100	95	95	100	95		100
	Chlorpyrifos			<0.0026	0.067	<0.0026	<0.0026	<0.0026	<0.0026	<0.0026	<0.0026		<0.0026
	DDE(p,p')			0.0042	0.01	0.035	0.023	0.044	0.027	0.018	<0.004		0.0081
	DDT(p,p')				<0.007	0.012	<0.007	0.011	<0.007	<0.007	<0.007		<0.007
	Diazinon				<0.004	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004		<0.004
	Dimethoate				<0.080	<0.080	<0.080	<0.080	0.62	0.47	<0.080		<0.080
	Diuron				<0.20	2.9	0.71	<0.20	<0.20	<0.20	<0.20		0.21
	Malathion				<0.050	0.067	<0.050	<0.050	<0.050	<0.050	<0.050		<0.050
	Parathion, methyl				<0.075	<0.075	<0.075	<0.075	<0.075	<0.075	<0.075		<0.075
	<i>Selenastrum capricornutum</i>		1240000	4300000	3775000	4337000	4875000	4470000	4048000	4428000			3180000
	Simazine				<0.08	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08		<0.08
	<i>Hyalella azteca</i>						16.25			0			
	Date		3/13/2012	4/10/2012	5/8/2012	6/12/2012	7/10/2012	8/14/2012	9/10/2012				
2012	<i>Ceriodaphnia dubia</i>			95	95	100	100	95	90				
	Chlorpyrifos			<0.0026	<0.0026	<0.0026	<0.0026	0.052	<0.0026				
	DDE(p,p')			0.027	0.017	0.0066	0.029	0.033	0.03				
	DDT(p,p')			<0.007	<0.007	<0.007	<0.007	0.012	<0.007				
	Diazinon			<0.004	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004			
	Dimethoate			<0.080	<0.080	<0.080	<0.080	<0.080	<0.080	0.44			
	Diuron			21	1.0	0.20	0.39	<0.20	<0.20				
	Malathion			<0.050	<0.050	<0.050	<0.050	<0.050	<0.050				
	Parathion, methyl			<0.075	<0.075	<0.075	<0.075	<0.075	<0.075				
	<i>Selenastrum capricornutum</i>		469000	3128000	3903000	2288000	3960000	4183000					
	Simazine			<0.08	<0.08	<0.08	<0.08	<0.08	<0.08				
	<i>Hyalella azteca</i>				60						1.25		
2013	Date	1/8/2013	3/12/2013	4/9/2013	5/14/2013	6/11/2013	7/9/2013	8/13/2013	9/9/2013				
	<i>Ceriodaphnia dubia</i>	100		95	100	5	0	90	100				
	Chlorpyrifos	0.21		<0.0026	<0.0026	0.27	<0.0026	<0.0026	<0.0026				
	DDE(p,p')			0.026	<0.004	0.018	0.040	0.0099	<0.004				
	DDT(p,p')			<0.007	<0.007	<0.007	<0.007	<0.007	<0.007				
	Diazinon	<0.004		<0.004	<0.004	0.55	1.1	<0.004	<0.004				
	Dimethoate	<0.080		<0.080	<0.080	<0.080	<0.080	<0.080	<0.080	4.8			
	Diuron	44		8.4	0.36	<0.20	0.28	<0.20	<0.20				
	Malathion	<0.050		<0.050	<0.050	<0.030	<0.030	<0.030	<0.030				
	Parathion, methyl	<0.075		<0.075	<0.075	<0.075	<0.075	<0.075	<0.075				
	<i>Selenastrum capricornutum</i>	86350	1360000	2620000	7333000	4270000	5520000	4913000					
	Simazine	5.0		<0.08	<0.08	<0.08	<0.08	<0.08	<0.08				
	<i>Hyalella azteca</i>			1.25						0			
2014	Date		3/3/2014	4/8/2014	5/13/2014	6/10/2014	7/8/2014	8/12/2014	9/9/2014	10/14/2014	11/12/2014		12/4/2014
	<i>Ceriodaphnia dubia</i>			100	95	100	95	95		100	100		90

MONITORING YEAR	MANAGEMENT PLAN CONSTITUENTS	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
	Chlorpyrifos			<0.0026	<0.0026	<0.0026	<0.0026	<0.0026	<0.0026	<0.0026	<0.0026	<0.0026	<0.0026
	DDE(p,p')			<0.004	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004
	DDT(p,p')			0.0073	<0.007	<0.007	<0.007	<0.007	<0.007	<0.007	<0.007	<0.007	<0.007
	Diazinon			<0.004	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004
	Dimethoate			<0.080	<0.080	<0.080	<0.080	0.76	<0.080	<0.080	<0.080	<0.080	<0.080
	Diuron			0.34	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	0.23
	Malathion			<0.030	<0.030	<0.030	<0.030	<0.030	<0.030	<0.030	<0.030	<0.030	<0.030
	Parathion, methyl			<0.075	<0.075	<0.075	<0.075	<0.075	<0.075	<0.075	<0.075	<0.075	<0.075
	<i>Selenastrum capricornutum</i>			7035000	5268000	5403000	5353000	5703000		6050000	8720000	3790000	6538000
	Simazine			<0.08	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08
	<i>Hyalella azteca</i>			40						18.8			
	Date	1/13/2015	3/10/2015	4/14/2015	5/12/2015	6/9/2015	7/14/2015	8/11/2015	9/15/2015				
2015	<i>Ceriodaphnia dubia</i>	0	100	90	95	100	100	100	100				
	Chlorpyrifos	0.58	<0.0026	<0.0026	<0.0026	<0.0026	<0.0026	<0.0026	<0.0026				
	DDE(p,p')	<0.004	<0.004	0.013	<0.004	<0.004	<0.004	<0.004	<0.004				
	DDT(p,p')	<0.007	<0.007	<0.007	<0.007	<0.007	<0.007	<0.007	<0.007				
	Diazinon	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004				
	Dimethoate	<0.080	<0.080	<0.080	<0.080	<0.080	<0.080	<0.080	<0.080				
	Diuron	<0.20	<0.20	0.38	<0.20	<0.20	<0.20	<0.20	<0.20				
	Malathion	<0.030	<0.030	<0.030	<0.030	<0.030	<0.030	<0.030	<0.030				
	Parathion, methyl	<0.075	<0.075	<0.075	<0.075	<0.075	<0.075	<0.075	<0.075				
	<i>Selenastrum capricornutum</i>	3885000	4195000	2790000	4818000	3803000	5890000	4400000	4000000				
	Simazine	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08				
	<i>Hyalella azteca</i>			20						0			
	Date	1/7/2016	3/8/2016	4/12/2016	5/10/2016	6/14/2016	7/12/2016	8/9/2016	9/12/2016				11/1/2016
2016	<i>Ceriodaphnia dubia</i>	100	100	100	100	100	100	100	100				90
	Chlorpyrifos	<0.0026	<0.0026	<0.0026	<0.0026	<0.0026	<0.0026	<0.0026	<0.0026				<0.0026
	DDE(p,p')	<0.004	0.016	<0.004	<0.004	<0.004	<0.004	<0.004	0.0068				0.011
	DDT(p,p')	<0.007	<0.007	<0.007	<0.007	<0.007	<0.007	<0.007	<0.007				<0.007
	Diazinon	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004				<0.004
	Dimethoate	<0.080	<0.080	<0.080	<0.080	<0.080	<0.080	0.14	<0.080				<0.080
	Diuron	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20				<0.20
	Malathion	<0.030	<0.030	<0.030	<0.030	<0.030	<0.030	<0.030	<0.030				<0.030
	Parathion, methyl	<0.075	<0.075	<0.075	<0.075	<0.075	<0.075	<0.075	<0.075				<0.075
	<i>Selenastrum capricornutum</i>	4578000	2825000	6958000	6128000	5020000	7295000	6250000					6850000
	Simazine	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08				<0.08
	<i>Hyalella azteca</i>			0						0			
	Date	1/10/2017	3/14/2017	4/11/2017	5/9/2017	6/13/2017							
2017	<i>Ceriodaphnia dubia</i>	100	100	100	100	100							
	Chlorpyrifos	<0.0026	<0.0026	<0.0026	<0.0026	<0.0026							
	DDE(p,p')	<0.004	<0.004	0.0067	0.0043								
	DDT(p,p')	<0.007	<0.007	<0.007	<0.007	<0.007							
	Diazinon	<0.004	<0.004	<0.004	<0.004	<0.004							

MONITORING YEAR	MANAGEMENT PLAN CONSTITUENTS	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	Nov	DEC
	Dimethoate	<0.080		<0.080	<0.080	<0.080							
	Diuron	<0.20		<0.20	<0.20	<0.20							
	Malathion	<0.030		<0.030	<0.030	<0.030							
	Parathion, methyl	<0.075		<0.075	<0.075	<0.075							
	<i>Selenastrum capricornutum</i>	4808000		5050000	6413000	5585000	4968000						
	Simazine	<0.08		<0.08	<0.08	<0.08							
	<i>Hyalella azteca</i>			47.5									

LOS BANOS CREEK AT CHINA CAMP ROAD

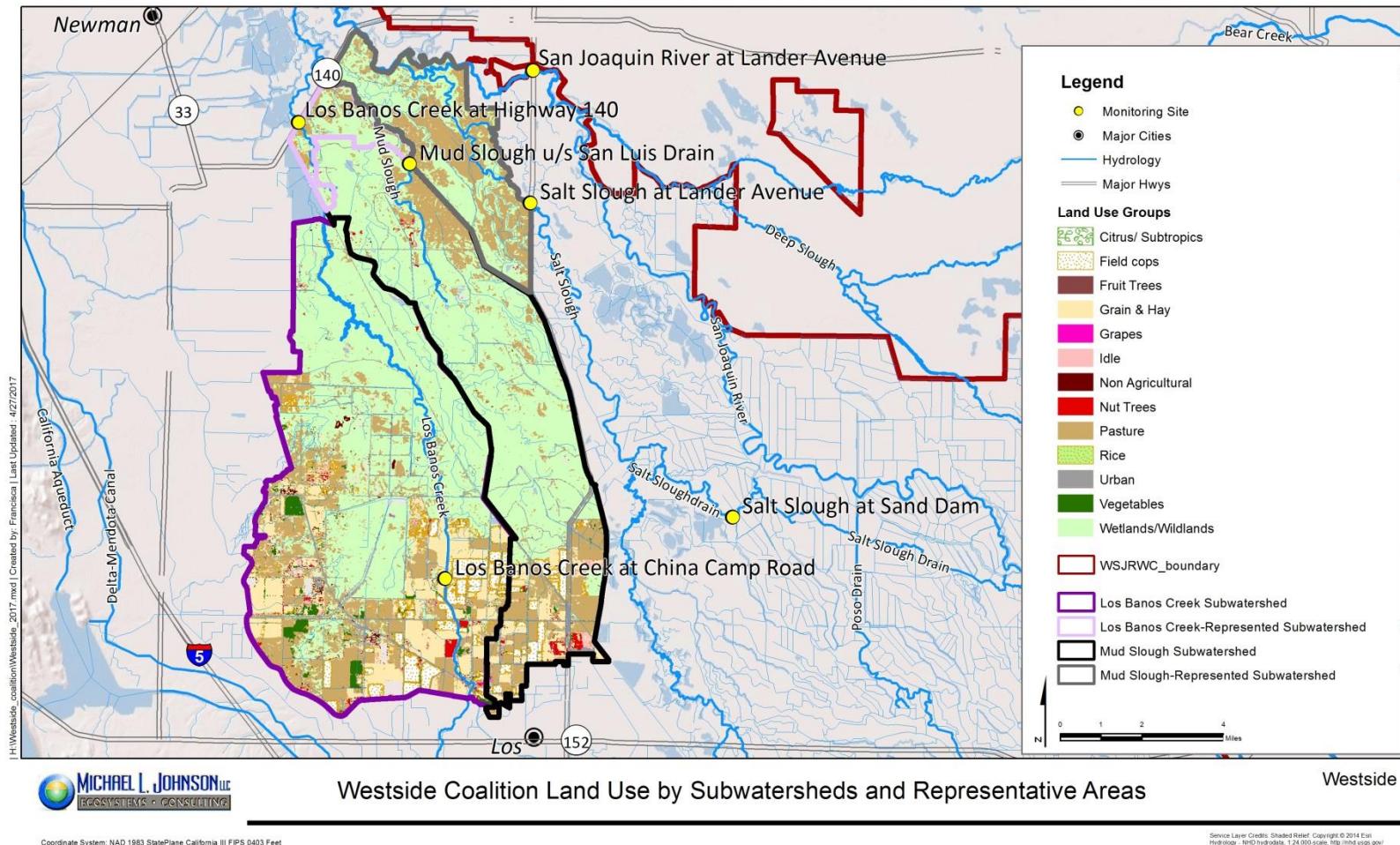
Description of Subwatershed

Los Banos Creek at China Camp Road (LBCCC) is a site where agricultural and storm runoff are monitored in the Los Banos Subarea, upstream of the Highway 140 site. The site is located in Merced County. There is a farmer-maintained dam downstream of this site which is frequently used to stop flows so that water may be diverted for irrigation. Discharge at this site is calculated through an estimated velocity and cross-sectional flow area.

Table 14. Los Banos Creek at China Camp Road management plan constituents.

10 YEAR DEADLINE	SUBWATERSHED NAME	CONSTITUENT	LAST EXCEEDANCE
2016	Los Banos Creek at China Camp Road	<i>H. azteca</i>	2013
2018	Los Banos Creek at China Camp Road	Chlorpyrifos	2016
2023	Los Banos Creek at China Camp Road	<i>S. capricornutum</i>	2012

Figure 6. Los Banos Creek at China Camp Road subwatershed land use map



Monitoring History Results

The Coalition initiated monitoring at Los Banos Creek at China Camp Road in 2004 and has continued to the present.

Table 15. Los Banos Creek at China Camp Road monitoring history for management plan constituents.

MONITORING YEAR	MANAGEMENT PLAN CONSTITUENTS	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
2004	Date									9/13/2004			12/29/04
	Chlorpyrifos												ND
	<i>Selenastrum capricornutum</i>												1830000
	<i>Hyalella azteca</i>									95			
2005	Date	2/16/2005	3/8/2005								10/11/05		
	Chlorpyrifos		ND	ND									
	<i>Selenastrum capricornutum</i>	2990000	2810000										
	<i>Hyalella azteca</i>		58.8							91			
2006	Date	1/3/2006		3/13/2006	4/11/2006					9/11/2006			
	Chlorpyrifos	ND			ND								
	<i>Selenastrum capricornutum</i>	3520000			2830000								
	<i>Hyalella azteca</i>		93.75							100			
2007	Date	2/12/2007			4/9/2007	5/8/2007		7/10/2007		9/10/2007			
	Chlorpyrifos	<0.0026				<0.0026		0.025					
	<i>Selenastrum capricornutum</i>	1410000				2477250		2540000					
	<i>Hyalella azteca</i>			98.75						13.75			
2008	Date	1/5/2008		3/18/2008		5/13/2008				9/9/2008			
	Chlorpyrifos	<0.0026		<0.0026		<0.003							
	<i>Selenastrum capricornutum</i>	4770000		5710000		4860000							3385000
	<i>Hyalella azteca</i>		92.5							87.5			
2009	Date	2/12/2009	3/10/2009	4/14/2009	5/12/2009	6/9/2009	7/14/2009	8/11/2009	9/14/2009				12/8/2009
	Chlorpyrifos	0.0074	<0.0026	<0.0026	<0.0026	<0.0026	<0.0026	<0.0026	0.041				<0.0026
	<i>Selenastrum capricornutum</i>	2707000	2908000	5965000	3660000	4345000	3880000	3910000					
	<i>Hyalella azteca</i>		97.5							96.25			
2010	Date	1/21/2010		3/9/2010	4/13/2010	5/11/2010	6/8/2010	7/14/2010	8/10/2010	9/13/2010			12/21/10
	Chlorpyrifos	<0.0026		<0.0026	<0.0026	<0.0026	<0.0026	0.031	<0.0026				<0.0026
	<i>Selenastrum capricornutum</i>	4907000		3932000	3395000	3288000	3185000	4743000	2405000				4928000
	<i>Hyalella azteca</i>		95							98.75			
2011	Date	2/23/2011	3/8/2011	4/12/2011	5/10/2011	6/14/2011	7/12/2011	8/9/2011	9/13/2011	10/11/11	11/8/11		12/13/11
	Chlorpyrifos	<0.0026	<0.0026	<0.0026	<0.0026	<0.0026	<0.0026	<0.0026	<0.0026	<0.0026	<0.0026		<0.0026
	<i>Selenastrum capricornutum</i>	3608000	2885000	4983000	5020000	3400000	4173000	3613000	4845000	4180000	3223000		3370000
	<i>Hyalella azteca</i>				96.25					97.5			
2012	Date	1/10/2012	2/14/2012	3/13/2012	4/10/2012	5/8/2012	6/12/2012	7/10/2012	8/14/2012	9/10/2012			
	Chlorpyrifos	<0.0026	<0.0026	<0.0026	<0.0026	<0.0026	<0.0026	<0.0026	<0.0026				
	<i>Selenastrum capricornutum</i>	3313000	2885000	1760000	2568000	4185000	1823000	4340000	3763000				
	<i>Hyalella azteca</i>		100							85			
2013	Date	1/8/2013		3/12/2013	4/9/2013	5/14/2013	6/11/2013	7/9/2013	8/13/2013	9/9/2013			
	Chlorpyrifos	<0.0026		<0.0026	<0.0026	<0.0026	0.088	<0.0026	<0.0026				
	<i>Selenastrum capricornutum</i>	4500000		5485000	9413000	5898000	4903000	5903000	6315000				
	<i>Hyalella azteca</i>		100							80			

MONITORING YEAR	MANAGEMENT PLAN CONSTITUENTS	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
2014	Date	2/10/2014	3/3/2014	4/8/2014	5/13/2014	6/10/2014	7/8/2014	8/12/2014	9/9/2014	10/14/14	11/12/14	12/4/2014	
	Chlorpyrifos	<0.0026	<0.0026	<0.0026	<0.0026	<0.0026	<0.0026	<0.0026	<0.0026	<0.0026	<0.0026	<0.0026	
	<i>Selenastrum capricornutum</i>	6683000	6250000	6080000	7330000	6385000	6980000		8055000	7838000	4405000	6540000	
	<i>Hyalella azteca</i>		88.75							81.25			
2015	Date	1/13/2015	2/10/2015	3/10/2015	4/14/2015	5/12/2015	6/9/2015	7/14/2015	8/11/2015	9/15/2015			
	Chlorpyrifos	<0.0026	<0.0026	<0.0026	<0.0026	<0.0026	<0.0026	<0.0026	<0.0026	<0.0026			
	<i>Selenastrum capricornutum</i>	5613000	6080000	7233000	7260000	2980000	5555000	5685000	5405000	5680000			
	<i>Hyalella azteca</i>			97.5						96.25			
2016	Date	1/7/2016		3/8/2016	4/12/2016	5/10/2016	6/14/2016	7/12/2016	8/9/2016	9/12/2016		11/1/2016	
	Chlorpyrifos	0.022		<0.0026	<0.0026	<0.0026	<0.0026	<0.0026	<0.0026			<0.0026	
	<i>Selenastrum capricornutum</i>	3680000		2983000	7195000	6978000	5863000	8190000	7105000			5703000	
	<i>Hyalella azteca</i>			92.5						95			
2017	Date	1/10/2017		3/14/2017	4/11/2017	5/9/2017	6/13/2017						
	Chlorpyrifos	<0.0026		<0.0026	<0.0026	<0.0026							
	<i>Selenastrum capricornutum</i>	5478000		5530000	5778000	4810000	4593000						
	<i>Hyalella azteca</i>			100									

LOS BANOS CREEK AT HWY 140

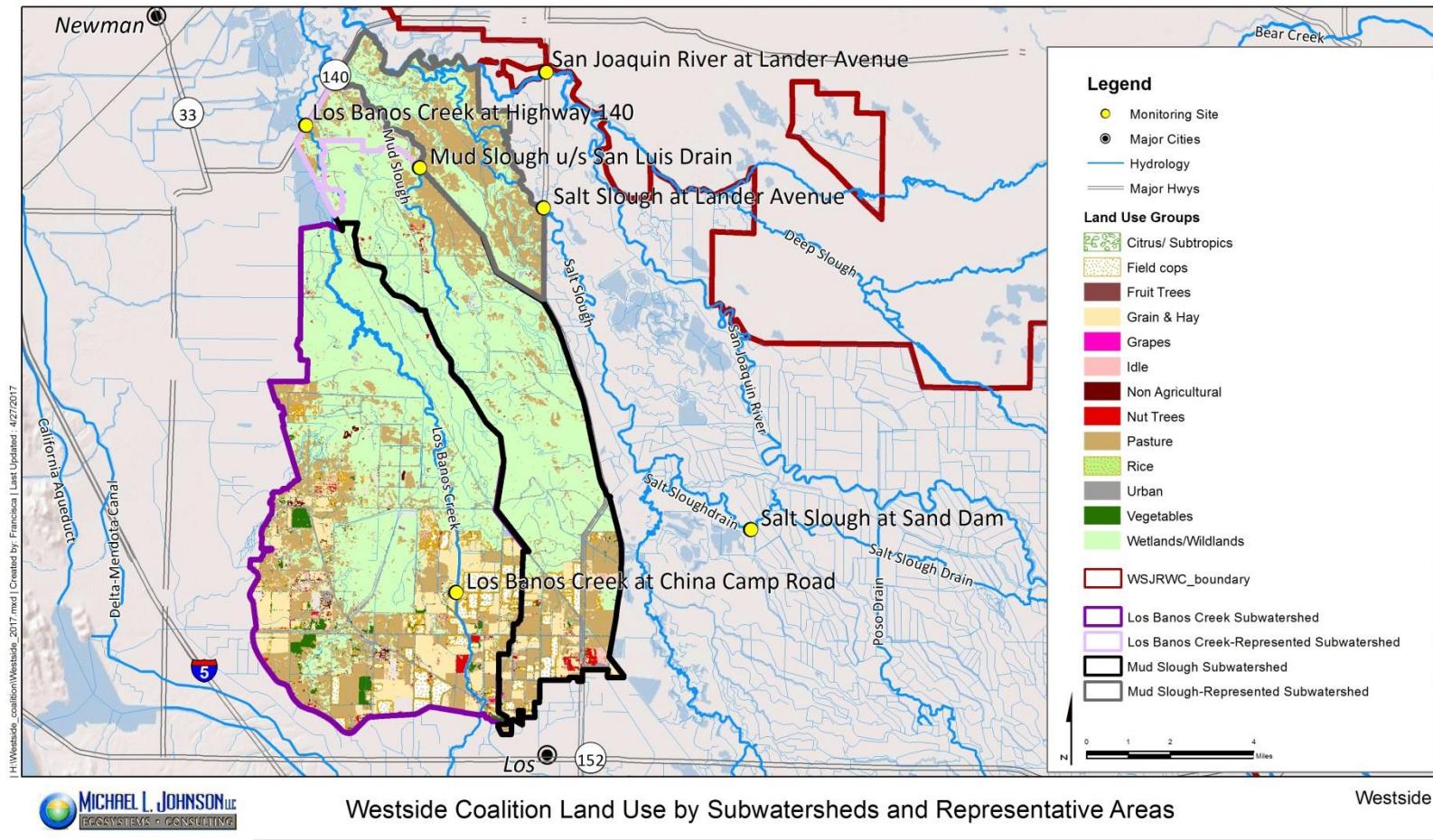
Description of Subwatershed

Los Banos Creek at Highway 140 (LBCHW) carries agricultural, stormwater and irrigated wetland runoff from the Los Banos Subarea. The site is located in Merced County. The subarea includes 16,000 acres of irrigated land. The primary crops grown within the subwatershed are alfalfa and double-cropped corn with oats. Some pesticides have been measured at this site. Discharge at this site is calculated through an estimated velocity and cross-sectional flow area.

Table 16. Los Banos Creek at Hwy 140 management plan constituents.

10 YEAR DEADLINE	SUBWATERSHED NAME	CONSTITUENT	LAST EXCEEDANCE
2016	Los Banos Creek at Hwy 140	<i>C. dubia</i>	2011
2019	Los Banos Creek at Hwy 140	Malathion	2008

Figure 7. Los Banos Creek at Hwy 140 subwatershed land use map



Monitoring History Results

The Coalition initiated monitoring at Los Banos Creek at Hwy 140 in 2004 and has continued to the present.

Table 17. Los Banos Creek at Hwy 140 monitoring history for management plan constituents.

MONITORING YEAR	MANAGEMENT PLAN CONSTITUENTS	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
2004	Date							7/13/2004	8/10/2004	9/14/2004	10/12/2004		12/14
	<i>Ceriodaphnia dubia</i>							85	95	100	15		100
	Malathion							ND	ND	ND	ND		ND
2005	Date	1/11/05	2/16/2005	3/8/2005	4/12/2005	5/10/2005	6/14/2005	7/12/2005	8/9/2005	9/14/2005	10/12/2005	11/8/2005	12/13/2005
	<i>Ceriodaphnia dubia</i>	100	0	100	100	95	95	95	100	100	100	100	100
	Malathion	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
2006	Date	1/3/06	2/14/2006	3/14/2006	4/11/2006	5/9/2006	6/13/2006	7/11/2006	8/8/2006	9/12/2006	10/10/2006	11/14/2006	12/12/2006
	<i>Ceriodaphnia dubia</i>	100	100	90	95	100	100	100	100	100	90	100	100
	Malathion	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	<0.050	<0.050
2007	Date	1/9/07	2/12/2007	3/13/2007	4/10/2007	5/8/2007	6/12/2007	7/10/2007	8/14/2007	9/11/2007	10/9/2007	11/13/2007	12/11/2007
	<i>Ceriodaphnia dubia</i>	100	100	100	100	100	95	100	100	100	95	85	100
	Malathion	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050
2008	Date	1/5/08	2/12/2008	3/18/2008	4/8/2008	5/13/2008	6/10/2008	7/8/2008	8/12/2008	9/10/2008	10/23/2008	11/12/2008	12/9/2008
	<i>Ceriodaphnia dubia</i>	100	100	100	100	100	100	100	100	100	100	100	100
	Malathion	<0.05	<0.05	0.081	<0.050	<0.050	<0.050	<0.050	0.28	<0.050	<0.050	<0.050	<0.050
2009	Date	1/13/09	2/12/2009	3/10/2009	4/14/2009	5/12/2009	6/9	6/15	6/25	7/14/2009	8/11/2009	9/15/2009	10/13/2009
	<i>Ceriodaphnia dubia</i>	55	100	95	95	100	100	100	100	75	88	90	100
	Malathion	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050
2010	Date	1/12/10	2/9/2010	3/9/2010	4/13/2010	5/11/2010	6/8/2010	7/14/2010	8/10/2010	9/16/2010	10/12/2010	11/9/2010	12/14
	<i>Ceriodaphnia dubia</i>	18.33	100	100	100	100	95	95	95	100	100	100	100
	Malathion	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050
2011	Date	1/11/11	2/8/2011	3/8/2011	4/12/2011	5/10/2011	6/14/2011	7/12/2011	8/9/2011	9/13/2011	10/11/2011	11/8/2011	12/13/2011
	<i>Ceriodaphnia dubia</i>	100	100	100	100	100	100	100	70	95	90	100	90
	Malathion	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050
2012	Date	1/10/12	2/14/2012	3/13/2012	4/10/2012	5/8/2012	6/12/2012	7/10/2012	8/14/2012	9/18/2012	10/16/2012	11/13/2012	12/11/2012
	<i>Ceriodaphnia dubia</i>	100	100	100	90	100	100	100	95	95	100	100	100
	Malathion	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050
2013	Date	1/8/13	2/12/2013	3/12/2013	4/9/2013	5/14/2013	6/11/2013	7/9/2013	8/13/2013	9/10/2013	10/8/2013	11/12/2013	12/10/2013
	<i>Ceriodaphnia dubia</i>	100	100	100	85	100	100	100	100	95	100	100	100
	Malathion	<0.050	<0.050	<0.050	<0.050	<0.030	<0.030	<0.030	<0.030	<0.030	<0.030	<0.030	<0.030
2014	Date	1/14/14	2/10/2014	3/3/2014	4/8/2014	5/13/2014	6/10/2014	7/8/2014	8/12/2014	9/9/2014	10/14/2014	11/12/2014	12/4/2014
	<i>Ceriodaphnia dubia</i>	90	90	100	100	100	100	100		100	100	95	100
	Malathion	<0.030	<0.030	<0.030	<0.030	<0.030	<0.030	<0.030	<0.030	<0.030	<0.030	<0.030	<0.030
2015	Date	1/13/15	2/10/2015	3/10/2015	4/14/2015	5/12/2015	6/9/2015	7/14/2015	8/11/2015	9/15/2015	10/20/2015		
	<i>Ceriodaphnia dubia</i>	100	100	100	100			85	100	95	100		
	Malathion	<0.030	<0.030	<0.030	<0.030	<0.030	<0.030	<0.030	<0.030	<0.030	<0.030		
2016	Date	1/7/16	2/9/2016	3/8/2016	4/12/2016	5/10/2016	6/14/2016	7/12/2016	8/9/2016	9/13/2016	10/11/2016	11/1/2016	
	<i>Ceriodaphnia dubia</i>	100	100	100	95	100	100	100	95	100	100	100	
	Malathion	<0.030	<0.030	<0.030	<0.030	<0.030	<0.030	<0.030	<0.030	<0.030	<0.030	<0.030	

MONITORING YEAR	MANAGEMENT PLAN CONSTITUENTS	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
2017	Date	1/10/17	2/14/2017	3/14/2017	4/11/2017	5/9/2017	6/13/2017						
	<i>Ceriodaphnia dubia</i>	100	100	100	100	100	95						
	Malathion	<0.030	<0.030	<0.030	<0.030	<0.030							

MARSHALL ROAD DRAIN NEAR RIVER ROAD

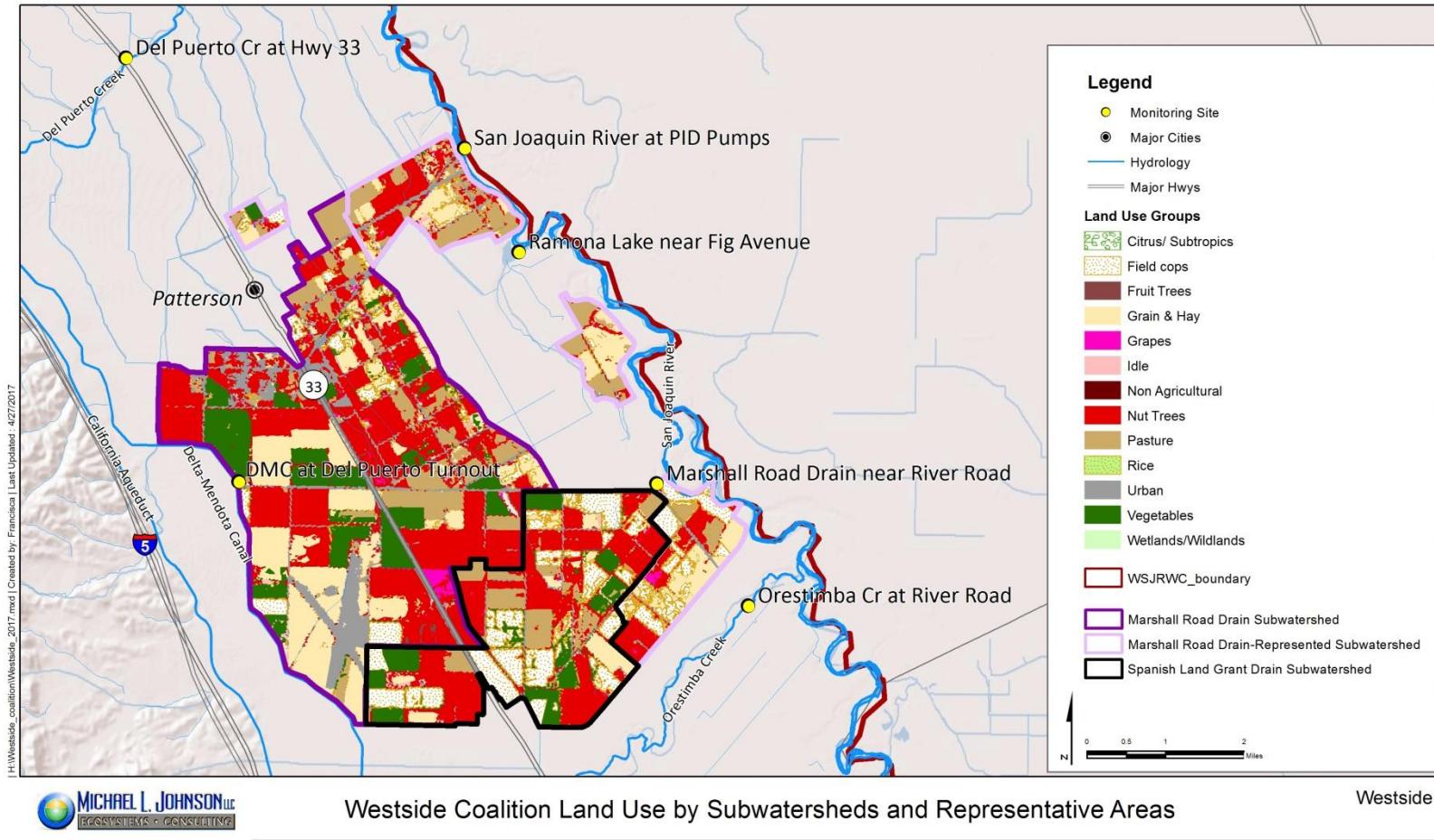
Description of Subwatershed

Marshall Road Drain near River Road (MRDRR) monitors a pipe drain that carries agricultural and stormwater runoff from the Patterson Subarea of the WSJRWRC region. The site is located in Stanislaus County and includes 16,100 acres of irrigated area. The primary irrigated acres within the subwatershed are alfalfa, almonds, tomatoes, and oats. This site has been monitored for a variety of constituents since 2004 and some pesticides and aquatic toxicity have been found at this site. Discharge from this site is measured by a weir within the pipe. During periods of high flow, the weir can become submerged and is incapable of measuring discharge.

Table 18. Marshall Road Drain near River Road management plan constituents.

10 YEAR DEADLINE	SUBWATERSHED NAME	CONSTITUENT	LAST EXCEEDANCE
2015	Marshall Road Drain near River Road	Chlorpyrifos	2017
2017	Marshall Road Drain near River Road	DDE	2011
2017	Marshall Road Drain near River Road	Diazinon	2013
2017	Marshall Road Drain near River Road	Dimethoate	2008
2017	Marshall Road Drain near River Road	Lambda cyhalothrin	2006
2017	Marshall Road Drain near River Road	<i>S. capricornutum</i>	2016
2018	Marshall Road Drain near River Road	DDT	2011
2018	Marshall Road Drain near River Road	Diuron	2016
2020	Marshall Road Drain near River Road	Chlordane	2009
2021	Marshall Road Drain near River Road	<i>C. dubia</i>	2013
2022	Marshall Road Drain near River Road	Malathion	2011

Figure 8. Marshall Road Drain near River Road subwatershed land use map



Coordinate System: NAD 1983 StatePlane California III FIPS 0403 Feet
Projection: property=Lambert Conformal Conic
Units: Foot US

Service Layer Credits: Shaded Relief: Copyright © 2014 Esri
Highway: Copyright © 2000 Esri
Roads: Highways released - ESR
Land Use: Cropland Data Layer, 2016, 30m
http://www.esri.com/research_and_science/Cropland/SAR51a.php

Monitoring History Results

The Coalition initiated monitoring at Marshall Road Drain near River Road in 2004 and has continued to the present.

Table 19. Marshall Road Drain near River Road monitoring history for management plan constituents.

MONITORING YEAR	MANAGEMENT PLAN CONSTITUENTS	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
2004	Date							7/6/2004	8/10/2004				
	<i>Ceriodaphnia dubia</i>							100	100				
	Chlorpyrifos							ND	0.40				
	Diazinon							ND	ND				
	Dimethoate							0.31Y	0.20				
	Malathion							ND	ND				
2005	<i>Selenastrum capricornutum</i>							1097000	972250				
	Date	1/8/2005	2/16/2005			5/10/2005	6/14/2005	7/12	7/15	8/9/2005			
	<i>Ceriodaphnia dubia</i>	95	95			95	100	0	95	100			
	Chlorpyrifos	ND	0.019J			ND	ND	0.44		0.023			
	Diazinon	ND	ND			ND	ND	ND		ND			
	Dimethoate	ND	ND			ND	ND	0.59		0.16			
2006	Malathion	ND	ND			ND	ND	ND		ND			
	<i>Selenastrum capricornutum</i>	33300	662000			1744000	3070000	2030000		1232000			
	Date	1/3/2006		4/4/2006		6/13/2006	7/11/2006	8/8/2006					
	<i>Ceriodaphnia dubia</i>	95		100		100	100	95					
	Chlorpyrifos	ND		0.011J		ND	0.019J	ND					
	DDE(p,p')						0.03						
2007	DDT(p,p')						0.015						
	Diazinon	ND		ND		ND	0.22	ND					
	Dimethoate	ND		2.5		ND	1.2	0.67					
	Diuron						ND	ND					
	Lambda cyhalothrin						0.03	0.0085					
	Malathion	ND		ND		ND	ND	ND					
2008	<i>Selenastrum capricornutum</i>	845000		2810000		1470000	3142500	1444750					
	Date	2/11/2007	3/13/2007	4/10/2007	5/8/2007	6/12/2007	7/10/2007	8/14/2007					
	<i>Ceriodaphnia dubia</i>	95	100	100	100	100	100	95					
	Chlordane, Alpha	<0.007	<0.007	<0.007	<0.007	<0.007	<0.007	<0.007					
	Chlordane, gamma	<0.006	<0.006	<0.006	<0.006	<0.006	<0.006	<0.006					
	Chlorpyrifos	0.023	<0.0026	<0.0026	<0.0026	<0.0026	<0.0026	0.016	<0.0026				
2008	DDE(p,p')	0.011	<0.004	<0.004	<0.004	0.0042	0.014	0.0057					
	DDT(p,p')	<0.007	<0.007	<0.007	<0.007	<0.007	0.0071	<0.007					
	Diazinon	0.046	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004	0.28			
	Dimethoate	<0.080	<0.080	0.084	<0.080	<0.080	0.24	0.55					
	Diuron	13	2.5	0.51	0.46	0.49	<0.20	<0.20					
	Lambda cyhalothrin	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001				
2008	Malathion	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050			
	<i>Selenastrum capricornutum</i>	410500	899750	1716750	1209500	1006500	1630000	3300000					
2008	Date	1/5/2008			4/8/2008	5/13/2008	6/10/2008	7/8/2008	8/12/2008				
	<i>Ceriodaphnia dubia</i>	100			100	100	95	100	100				

MONITORING YEAR	MANAGEMENT PLAN CONSTITUENTS	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	Nov	DEC
2009	Chlordane, Alpha	<0.007			<0.007	<0.007	<0.007	<0.007	<0.007				
	Chlordane, gamma	<0.006			<0.006	<0.006	<0.006	<0.006	<0.006				
	Chlorpyrifos	0.079			0.0046	<0.003	<0.003	0.043	0.04				
	DDE(p,p')	0.033			0.01	<0.004	<0.004	0.0049	<0.004				
	DDT(p,p')	0.02			<0.007	<0.007	<0.007	<0.007	<0.007				
	Diazinon	<0.004			<0.004	<0.004	<0.004	<0.004	0.022				
	Dimethoate	0.11			2.2	<0.08	<0.08	<0.13	0.54				
	Diuron	14			0.43	2.2	0.43	<0.2	<0.20				
	Lambda cyhalothrin	<0.001											
	Malathion	<0.050			<0.050	<0.05	<0.05	<0.05	<0.050				
	<i>Selenastrum capricornutum</i>	30500											
	Date				4/14/2009	5/12/2009	6/9/2009	7/14/2009	8/11/2009		10/14/2009		
	<i>Ceriodaphnia dubia</i>				100	100	100	85	5		100		
2010	Chlordane, Alpha				<0.007	<0.007	<0.007	<0.007	<0.007		<0.007		
	Chlordane, gamma				<0.006	<0.006	0.0082	<0.006	0.043		0.031		
	Chlorpyrifos				<0.0026	<0.0026	<0.0026	<0.0026	0.46		0.091		
	DDE(p,p')				<0.004	0.0094	<0.004	<0.004	0.0093		0.047		
	DDT(p,p')				<0.007	<0.007	<0.007	<0.007	<0.007		0.047		
	Diazinon				<0.004	<0.004	<0.004	<0.004	<0.004		<0.004		
	Dimethoate				<0.080	<0.080	<0.080	<0.080	0.40		0.53		
	Diuron				0.54	0.42	0.31	<0.20	<0.20		0.24		
	Malathion				<0.050	<0.050	<0.050	<0.050	<0.050		<0.050		
	<i>Selenastrum capricornutum</i>										3823000		
	Date	1/25/2010				5/11/2010	6/8/2010	7/14/2010	8/10/2010				12/20/2010
	<i>Ceriodaphnia dubia</i>	95				0	100	95	100				95
2011	Chlordane, Alpha	<0.007				<0.007	<0.007	<0.007	<0.007		<0.007		
	Chlordane, gamma	<0.006				<0.006	<0.006	<0.006	<0.006		<0.006		
	Chlorpyrifos	<0.0026				0.53	0.054	0.078	<0.0026		<0.0026		
	DDE(p,p')	0.028				<0.004	<0.004	0.011	0.0087			0.043	
	DDT(p,p')	0.016				<0.007	<0.007	<0.007	<0.007			0.012	
	Diazinon	<0.004				<0.004	<0.004	<0.004	0.027			<0.004	
	Dimethoate	<0.080				<0.080	<0.080	<0.080	0.58			<0.080	
	Diuron	3.5				<0.20	<0.20	<0.20	<0.20			2.3	
	Malathion	<0.050				<0.050	<0.050	0.061	<0.050			<0.050	
	<i>Selenastrum capricornutum</i>	1097000										2395000	
	Date				4/12/2011	5/10/2011	6/14/2011	7/12/2011	8/9/2011	9/13/2011			
	<i>Ceriodaphnia dubia</i>				100	95	90	100	100				
	Chlordane, Alpha				<0.007	<0.007	<0.007	<0.007	<0.007		<0.007		
	Chlordane, gamma				<0.006	<0.006	<0.006	<0.006	<0.006		<0.006		
	Chlorpyrifos				<0.0026	0.09	<0.0026	<0.0026	<0.0026		0.27		
	DDE(p,p')				0.014	0.014	<0.004	0.03	0.014	<0.004			
	DDT(p,p')				<0.007	<0.007	<0.007	0.014	<0.007		<0.007		
	Diazinon				<0.004	<0.004	<0.004	<0.004	<0.004		<0.004		

MONITORING YEAR	MANAGEMENT PLAN CONSTITUENTS	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	Nov	DEC
2012	Dimethoate				<0.080	<0.080	<0.080	<0.080	0.68	0.47			
	Diuron				<0.20	<0.20	<0.20	<0.20	<0.20	<0.20			
	Malathion				0.071	0.09	<0.050	<0.050	<0.050	<0.050			
	<i>Selenastrum capricornutum</i>				4283000	4137500	4139000	4288000	4368000	4968000			
	Date		3/13/2012	4/10/2012	5/8/2012	6/12/2012	7/10/2012	8/14/2012					
	<i>Ceriodaphnia dubia</i>				95	100	100	95	95				
	Chlordane, Alpha			<0.007	<0.007	<0.007	<0.007	<0.007	<0.007				
	Chlordane, gamma			<0.006	<0.006	<0.006	<0.006	<0.006	<0.006				
	Chlorpyrifos				<0.0026	0.17	<0.0026	<0.0026	<0.0026				
	DDE(p,p')				<0.004	<0.004	<0.004	<0.004	<0.004	<0.004			
2013	DDT(p,p')				<0.007	<0.007	<0.007	<0.007	<0.007	<0.007			
	Diazinon				<0.004	<0.004	<0.004	<0.004	<0.004	<0.004			
	Dimethoate				<0.080	<0.080	<0.080	<0.080	<0.080				
	Diuron				0.36	<0.20	<0.20	<0.20	<0.20				
	Malathion				<0.050	<0.050	<0.050	<0.050	<0.050				
	Date		3/12/2013		5/14/2013	6/11/2013	7/9/2013	8/13/2013					
	<i>Ceriodaphnia dubia</i>		100		0	100	100	100					
	Chlordane, cis		<0.007		<0.007	<0.007	<0.014	<0.007					
	Chlordane, trans		<0.006		<0.006	<0.006	<0.012	<0.006					
	Chlorpyrifos		<0.0026		<0.0026	<0.0026	<0.0026	<0.0026					
2014	DDE(p,p')		<0.004		<0.004	<0.004	0.015	<0.004					
	DDT(p,p')		<0.007		<0.007	<0.007	<0.014	<0.007					
	Diazinon		<0.004		2.9	<0.004	<0.004	<0.004					
	Dimethoate		<0.080		<0.080	<0.080	<0.080	<0.080					
	Diuron		1.4		<0.20	<0.20	<0.20	<0.20					
	Malathion		<0.050		<0.030	<0.030	<0.030	<0.030					
	Date		3/3/2014	4/8/2014	5/13/2014	6/10/2014	7/8/2014		9/9/2014	10/14/2014	11/12/2014	12/4/2014	
	<i>Ceriodaphnia dubia</i>		100	100	100	95	95		100	90	100	95	
	Chlordane, cis		<0.007	<0.007	<0.007	<0.007	<0.007		<0.007	<0.007	<0.007	<0.007	
	Chlordane, trans		<0.006	<0.006	<0.006	<0.006	<0.006		<0.006	<0.006	<0.006	<0.006	
2015	Chlorpyrifos		<0.0026	<0.0026	<0.0026	<0.0026	<0.0026		<0.0026	<0.0026	<0.0026	<0.0026	
	DDE(p,p')		<0.004	<0.004	<0.004	<0.004	<0.004		<0.004	<0.004	0.012	<0.004	
	DDT(p,p')		<0.007	<0.007	<0.007	<0.007	<0.007		<0.007	<0.007	<0.007	<0.007	
	Diazinon		<0.004	<0.004	<0.004	<0.004	<0.004		<0.004	<0.004	<0.004	<0.004	
	Dimethoate		0.89	<0.080	<0.080	<0.080	<0.080		<0.080	<0.080	<0.080	<0.080	
<i>Selenastrum capricornutum</i>	Diuron		2.1	<0.20	<0.20	<0.20	<0.20		<0.20	<0.20	<0.20	<0.20	0.84
	Malathion		<0.030	<0.030	<0.030	<0.030	<0.030		<0.030	<0.030	<0.030	<0.030	<0.030
	Date				5/12/2015				9/15/2015				
	<i>Ceriodaphnia dubia</i>				100				100				
2015	Chlordane, cis				<0.007				<0.007				
	Chlordane, trans				<0.006				<0.006				
	Chlorpyrifos				<0.0026				0.0090				

MONITORING YEAR	MANAGEMENT PLAN CONSTITUENTS	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	Nov	DEC
	DDE(p,p')					<0.004				0.022			
	DDT(p,p')					<0.007				<0.007			
	Diazinon					<0.004				<0.004			
	Dimethoate					<0.080				<0.080			
	Diuron					<0.20				<0.20			
	Malathion					<0.030				<0.030			
2016	Date	1/7/2016		3/8/2016			7/12/2016						
	<i>Ceriodaphnia dubia</i>	100		100			100						
	Chlordane, cis	<0.007		<0.007			<0.035						
	Chlordane, trans	<0.006		<0.006			<0.030						
	Chlorpyrifos	0.017		<0.0026			0.025						
	DDE(p,p')	<0.004		0.027			<0.020						
	DDT(p,p')	<0.007		<0.007			<0.035						
	Diazinon	<0.004		<0.004			<0.004						
	Dimethoate	<0.080		<0.080			<0.080						
	Diuron	76		3.8			<0.20						
	Malathion	<0.030		<0.030			<0.030						
	<i>Selenastrum capricornutum</i>	130000											
2017	Date	1/10/2017			4/11/2017	5/9/2017	6/13/2017						
	<i>Ceriodaphnia dubia</i>	100			100	100	100						
	Chlordane, cis	<0.007			<0.007	<0.007							
	Chlordane, trans	<0.006			<0.006	<0.006							
	Chlorpyrifos	0.097			<0.0026	<0.0026							
	DDE(p,p')	0.016			<0.004	<0.004							
	DDT(p,p')	<0.007			<0.007	<0.007							
	Diazinon	<0.004			<0.004	<0.004							
	Dimethoate	<0.080			<0.080	<0.080							
	Diuron	0.63			<0.20	<0.20							
	Malathion	<0.030			<0.030	<0.030							
	<i>Selenastrum capricornutum</i>	5215000			6278000	4825000	5110000						

MUD SLOUGH UPSTREAM OF SAN LUIS DRAIN

Description of Subwatershed

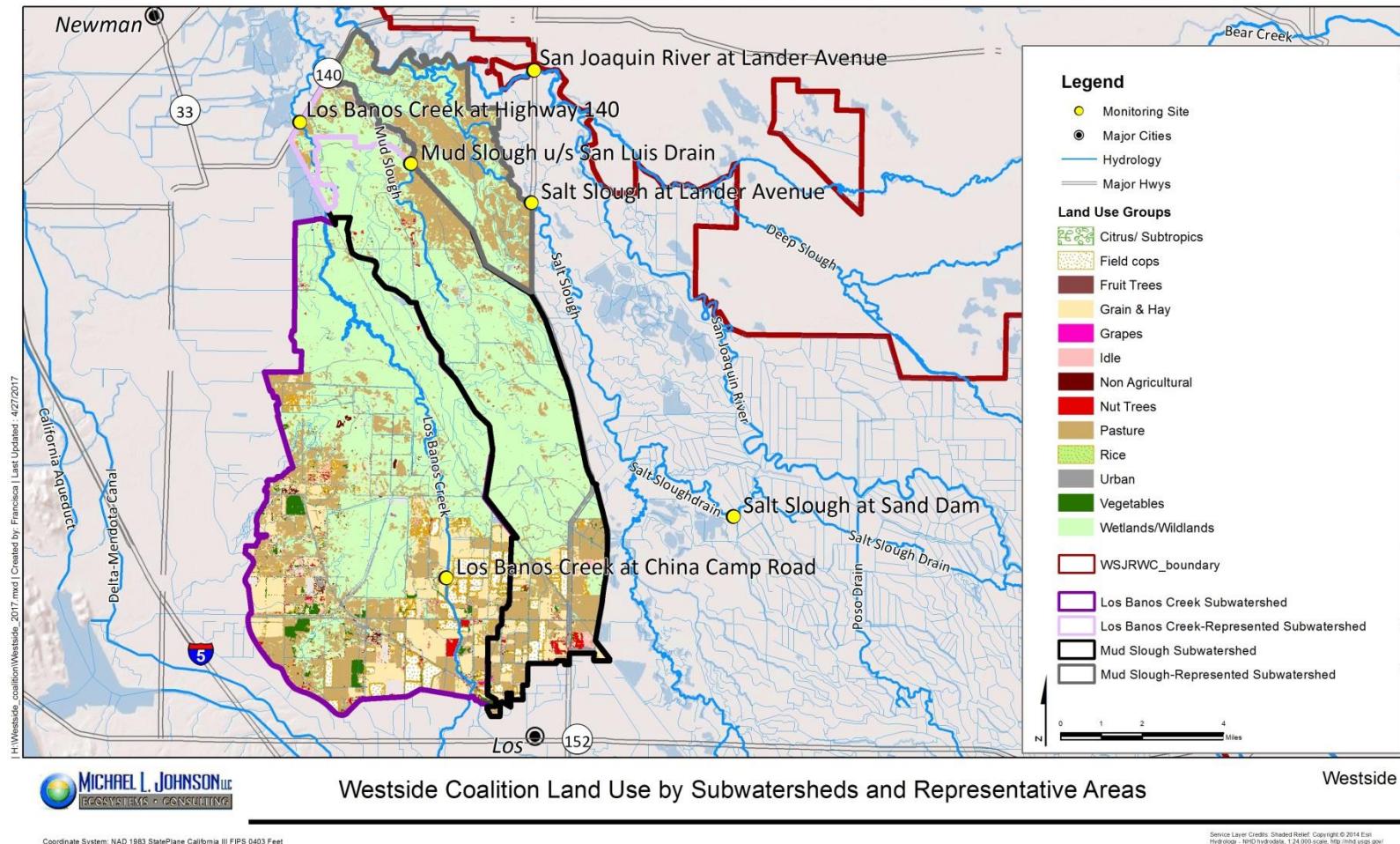
Mud Slough upstream of the San Luis Drain (MSUSL) samples drainage originating from the Dos Palos and Los Banos Subareas that flow through the wetlands as well as the wetlands themselves. The site is located in Merced County and includes 6400 acres of irrigated area. The primary irrigated acreage within the subwatershed is alfalfa. Mud Slough is on the 303(d) list for a variety of constituents. Discharge at this site is calculated as the difference between the flow downstream of the San Luis Drain (reported by CDEC) and the measured San Luis Drain discharge. The SWAMP Data are available at:

<http://www.waterboards.ca.gov/centralvalley/programs/agunit/swamp/index.html>.

Table 20. Mud Slough Upstream of San Luis Drain management plan constituents.

10 YEAR DEADLINE	SUBWATERSHED NAME	CONSTITUENT	LAST EXCEEDANCE
2017	Mud Slough Upstream of San Luis Drain	Chlorpyrifos	2008
2024	Mud Slough Upstream of San Luis Drain	Malathion	2013

Figure 9. Mud Slough Upstream of San Luis Drain subwatershed land use map



Monitoring History Results

The Coalition initiated monitoring at Mud Slough Upstream of San Luis Drain in 2004 and has continued to the present.

Table 21. Mud Slough Upstream of San Luis Drain monitoring history for management plan constituents.

MONITORING YEAR	MANAGEMENT PLAN CONSTITUENTS	JAN	FEB		MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC		
2004	Date								7/13/2004	8/10	9/14	10/12	11/9/2004	12/14	12/28	
	Chlorpyrifos								ND	ND	ND	ND	ND	ND	ND	
	Malathion								ND	ND	ND	ND	ND	ND	ND	
2005	Date	1/11/2005	2/8/05	2/16/05	3/8/2005	4/12/2005	5/10/2005	6/14/2005	7/12/2005	8/9/2005	9/14/05	10/12/05	11/8/2005	12/13/2005		
	Chlorpyrifos	ND	ND	ND	0.012J	ND	ND	ND	ND	ND	ND	ND	ND	ND		
	Malathion	ND	ND	ND	0.062J	ND	ND	ND	ND	ND	ND	ND	ND	ND		
2006	Date	1/3/2006	2/14/06	2/28/06	3/14/2006	4/11/2006	5/9/2006	6/13/2006	7/11/2006	8/8/2006	9/12/06	10/10/06	11/14/06	12/12/2006		
	Chlorpyrifos	ND	ND	ND	ND	ND	ND	ND	ND	0.016J	ND	ND	<0.0026	<0.0026		
	Malathion	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	<0.05	<0.05		
2007	Date	1/9/2007	2/12/2007		3/13/2007	4/10/2007	5/8/2007	6/12/2007	7/10/2007	8/14/07	9/11/07	10/9/2007	11/13/2007	12/11		
	Chlorpyrifos	<0.0026	<0.0026		<0.0026	<0.0026	<0.0026	<0.0026	<0.003	0.055	<0.003	<0.003	<0.003	<0.0026		
	Malathion	<0.05	<0.05		<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05		
2008	Date	1/5/2008	2/12/2008		3/18/2008	4/8/2008	5/13/2008	6/10/2008	7/8/2008	8/12/08	9/10/08	10/23/08	11/12/2008	12/9/2008		
	Chlorpyrifos	<0.0026	<0.0026		<0.0026	<0.0026	<0.0026	<0.0026	<0.0026	<0.0026	0.098	<0.003	<0.003	<0.0026		
	Malathion	<0.050	<0.050		<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050		
2009	Date	1/13/2009	2/12/2009		3/10/2009	4/14/2009	5/12/2009	6/9/2009	7/14/2009	8/11/09	9/15/09	10/13/09	11/10/2009	12/9/2009		
	Chlorpyrifos	<0.0026	0.006		<0.0026	<0.0026	<0.0026	<0.0026	<0.0026	<0.0026	<0.0026	<0.0026	<0.0026	<0.0026		
	Malathion	<0.050	<0.050		<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050		
2010	Date	1/12/10	1/21/10	2/9/2010		3/9/2010	4/13/2010	5/11/2010	6/8/2010	7/14/2010	8/10/10	9/16/10	10/12/10	11/9/2010	12/14	12/21
	Chlorpyrifos	<0.0026	<0.0026	<0.0026		<0.0026	<0.0026	<0.0026	<0.0026	<0.0026	<0.0026	<0.0026	<0.0026	<0.0026	<0.0026	
	Malathion	<0.050	<0.050	<0.050		<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	
2011	Date	1/11/2011	2/8/11	2/23/11	3/8/2011	4/12/2011	5/10/2011	6/14/2011	7/12/2011	8/9/2011	9/13/11	10/11/11	11/8/2011	12/13/2011		
	Chlorpyrifos	<0.0026	<0.0026	<0.0026	<0.0026	<0.0026	<0.0026	<0.0026	<0.0026	<0.0026	<0.0026	<0.0026	<0.0026	<0.0026		
	Malathion	<0.050	<0.050	<0.050	<0.050	0.60	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050		
2012	Date	1/10/2012	2/14/2012		3/13/2012	4/10/2012	5/8/2012	6/12/2012	7/10/2012	8/14/12	9/18/12	10/16/12	11/13/2012	12/11/2012		
	Chlorpyrifos	<0.0026	<0.0026		<0.0026	<0.0026	<0.0026	<0.0026	<0.0026	<0.0026	<0.0026	<0.0026	<0.0026	<0.0026		
	Malathion	<0.050	<0.050		<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050		
2013	Date	1/8/2013	2/12/2013		3/12/2013	4/9/2013	5/14/2013	6/11/2013	7/9/2013	8/13/13	9/10/13	10/8/2013	11/12/2013	12/10/2013		
	Chlorpyrifos	<0.0026	<0.0026		<0.0026	<0.0026	<0.0026	<0.0026	<0.0026	<0.0026	<0.0026	<0.0026	<0.0026	<0.0026		
	Malathion	<0.050	<0.050		0.11	<0.050	<0.030	<0.030	<0.030	<0.030	<0.030	<0.030	<0.030	<0.030		
2014	Date	1/14/2014	2/10/2014		3/3/2014	4/8/2014	5/13/2014	6/10/2014	7/8/2014	8/12/14	9/9/2014	10/14/14	11/12/2014	12/4/2014		
	Chlorpyrifos	<0.0026	<0.0026		<0.0026	<0.0026	<0.0026	<0.0026	<0.0026	<0.0026	<0.0026	<0.0026	<0.0026	<0.0026		
	Malathion	<0.030	<0.030		<0.030	<0.030	<0.030	<0.030	<0.030	<0.030	<0.030	<0.030	<0.030	<0.030		

	Date	1/13/2015	2/10/2015	3/10/2015	4/14/2015	5/12/2015	6/9/2015			9/15/15	10/20/15		
2015	Chlorpyrifos	<0.0026	<0.0026	<0.0026	<0.0026	<0.0026	<0.0026			<0.0026	<0.0026		
	Malathion	<0.030	<0.030	<0.030	<0.030	<0.030	<0.030			<0.030	<0.030		
2016	Date	1/7/2016	2/9/2016	3/8/2016	4/12/2016	5/10/2016	6/14/2016	7/12/2016	8/9/2016	9/13/16	10/11/16	11/1/2016	
	Chlorpyrifos	<0.0026	<0.0026	<0.0026	<0.0026	<0.0026	<0.0026	<0.0026	<0.0026	<0.0026	<0.0026	<0.0026	
2017	Malathion	<0.030	<0.030	<0.030	<0.030	<0.030	<0.030	<0.030	<0.030	<0.030	<0.030	<0.030	
	Date	1/10/2017	2/14/2017	3/14/2017	4/11/2017								
	Chlorpyrifos	0.0065	<0.0026	<0.0026	<0.0026								
	Malathion	<0.030	<0.030	<0.030	<0.030								

NEWMAN WASTEWAY NEAR HILLS FERRY RD

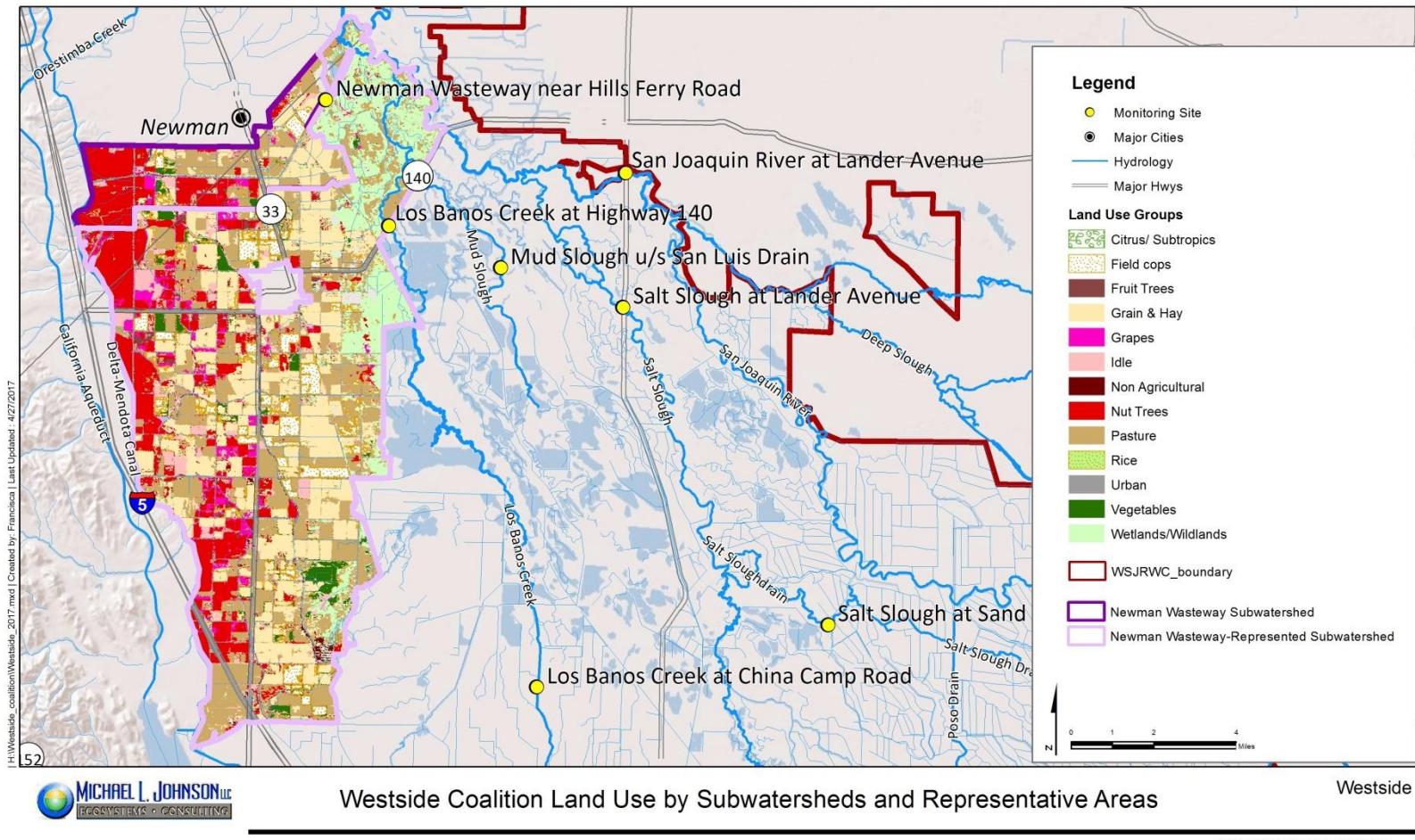
Description of Subwatershed

Newman Wasteway near Hills Ferry Road (NWHFR) is a significant drainage for the Patterson Subarea and is on the 303(d) list for salt and pesticides. The site is located in Stanislaus and Merced Counties. The subarea includes 42,600 acres of irrigated area. The primary irrigated acreage within the subwatershed are almonds, as well as double-cropped cotton with winter wheat and corn with oats. This site measures drainage that originates from the southerly region of the Patterson Subarea, and has been monitored for a variety of constituents since 2004. Pesticides, sediment discharge, sediment toxicity, and aquatic toxicity have been measured at this site. Discharge at this site is calculated through an estimated velocity and cross-sectional flow area.

Table 22. Newman Wasteway near Hills Ferry Rd management plan constituents.

10 YEAR DEADLINE	SUBWATERSHED NAME	CONSTITUENT	LAST EXCEEDANCE
2016	Newman Wasteway near Hills Ferry Road	Chlorpyrifos	2014
2016	Newman Wasteway near Hills Ferry Road	<i>H. azteca</i>	2013
2018	Newman Wasteway near Hills Ferry Road	DDE	2013
2018	Newman Wasteway near Hills Ferry Road	<i>P. promelas</i>	2007
2018	Newman Wasteway near Hills Ferry Road	<i>S. capricornutum</i>	2007
2020	Newman Wasteway near Hills Ferry Road	<i>C. dubia</i>	2015
2024	Newman Wasteway near Hills Ferry Road	Dimethoate	2013
2026	Newman Wasteway near Hills Ferry Road	Diazinon	2015
2026	Newman Wasteway near Hills Ferry Road	Diuron	2015

Figure 10. Newman Wasteway near Hills Ferry Rd subwatershed land use map



Monitoring History Results

The Coalition initiated monitoring at Newman Wasteway near Hills Ferry Rd in 2004 and has continued to the present.

Table 23. Newman Wasteway near Hills Ferry Rd monitoring history for management plan constituents.

MONITORING YEAR	MANAGEMENT PLAN CONSTITUENTS	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
2004	Date							7/13/2004	8/10/2004	9/13/2004			12/28/2004
	<i>Ceriodaphnia dubia</i>							100	100				100
	Chlorpyrifos							ND	ND				ND
	Diazinon							ND	ND				ND
	Dimethoate							0.06J	0.49Y				ND
	<i>Hyalella azteca</i>									0.116			
	<i>Pimephales promelas</i>							100	100				90
	<i>Selenastrum capricornutum</i>							1465250	1245750				778000
2005	Date	2/16/2005	3/7	3/8		5/10/2005	6/14/2005	7/12/2005	8/9/2005		10/11/2005		
	<i>Ceriodaphnia dubia</i>	100		100		80	100	100	95				
	Chlorpyrifos	ND		0.017J		ND	ND	ND	ND				
	Diazinon	ND		ND		ND	ND	ND	ND				
	Dimethoate	ND		ND		ND	ND	0.26	0.29				
	<i>Hyalella azteca</i>		0.1										76
	<i>Pimephales promelas</i>	90		92		97	98	97	100				
	<i>Selenastrum capricornutum</i>	2850000		2520000		2685000	3660000	3550000	2190000				
2006	Date	1/3/2006	2/28/2006	3/13	3/14	4/11/2006	5/9/2006	6/13/2006	7/11/2006	8/8/2006	9/11/2006		
	<i>Ceriodaphnia dubia</i>	100	95		100	95	100	100	100	95			
	Chlorpyrifos	ND	ND		ND	ND	ND	ND	ND	ND			
	DDE(p,p')									0.0057			
	Diazinon	ND	ND		ND	ND	ND	ND	ND	ND			
	Dimethoate	0.42	ND		ND	ND	ND	ND	0.15	ND			
	Diuron								ND	ND			
	<i>Hyalella azteca</i>		90								98.75		
2007	<i>Pimephales promelas</i>	97	90		100	98	70	100	100	100			
	<i>Selenastrum capricornutum</i>	2460000	2530000		3710000	2220000	2163000	2190000	2412500	1144500			
	Date	2/12/2007	3/12	3/13	4/10/2007	5/8/2007	6/12/2007	7/10/2007	8/14/2007	9/10/2007			
	<i>Ceriodaphnia dubia</i>	95		100	100	100	100	95	100				
	Chlorpyrifos	0.034		0.021	<0.0026	<0.0026	<0.0026	<0.0026	0.01	<0.0026			
	DDE(p,p')	0.0041		<0.004	0.004	0.0044	0.0063	0.0065	0.0049				
	Diazinon	<0.004		<0.004	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004			
	Dimethoate	<0.080		<0.080	<0.080	<0.080	<0.080	0.33	0.09	<0.08			
2008	Diuron	0.56		13	0.96	1	0.54	0.27	<0.2				51.25
	<i>Hyalella azteca</i>		93.75										
	<i>Pimephales promelas</i>	100		97.5	100	95	92.5	95	87.5				
	<i>Selenastrum capricornutum</i>	1808000		223250	2476500	1845250	1180550	2330000	3350000				
	Date	1/5/2008	3/17	3/18	4/8/2008	5/13/2008	6/10/2008	7/8/2008	8/12/2008	9/9/2008			
	<i>Ceriodaphnia dubia</i>	100		100	60	100	100	90	55				
	Chlorpyrifos	0.014		<0.0026	<0.0026	<0.0026	<0.0026	<0.0026	<0.0026	0.018			
	DDE(p,p')	0.0055		<0.004	<0.004	0.0047	<0.004	<0.004	<0.004	<0.004			
	Diazinon	<0.004		<0.004	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004			
	Dimethoate	<0.080		0.52	<0.080	<0.080	<0.080	<0.080	<0.080	<0.080			
	Diuron	2		1.8	<0.2	0.6	<0.2	<0.2	<0.2	<0.2			
	<i>Hyalella azteca</i>		97.5								82.5		
	<i>Pimephales promelas</i>	97.5											

MONITORING YEAR	MANAGEMENT PLAN CONSTITUENTS	JAN	FEB	MAR		APR	MAY	JUN			JUL	AUG	SEP	OCT	NOV	DEC
	<i>Selenastrum capricornutum</i>	2430000														
2009	Date	2/12/2009	3/9	3/10	4/14/2009	5/12/2009	6/9	6/15	6/25	7/14/09			9/14/2009			12/9/2009
	<i>Ceriodaphnia dubia</i>	100		60	100	100		90	65	100						95
	Chlorpyrifos	<0.0026		<0.0026	<0.0026	<0.0026	<0.0026				<0.0026					<0.0026
	DDE(p,p')	<0.004		0.007	<0.004	0.01	0.0081				<0.004					<0.004
	Diazinon	<0.004		<0.004	<0.004	<0.004	<0.004				<0.004					<0.004
	Dimethoate	<0.080		<0.080	<0.080	<0.080	<0.080				<0.080					<0.080
	Diuron	<0.20		<0.20	0.35	<0.20	<0.20				<0.20					0.36
	<i>Hyalella azteca</i>		98.75										98.75			
	<i>Pimephales promelas</i>	97.5														100
	<i>Selenastrum capricornutum</i>	2918000														3440000
2010	Date	1/21/2010	3/8	3/9	4/13/2010	5/11/2010	6/8/2010	7/14/10	8/10/10	9/13/2010						12/21/2010
	<i>Ceriodaphnia dubia</i>	95		85	95	90	100	100	90							95
	Chlorpyrifos	<0.0026		<0.0026	<0.0026	<0.0026	<0.0026	<0.0026	<0.0026							<0.0026
	DDE(p,p')	0.011		<0.004	<0.004	<0.004	0.0058	<0.004	<0.004							<0.004
	Diazinon	<0.004		<0.004	0.048	<0.004	<0.004	<0.004	<0.004							<0.004
	Dimethoate	<0.080		<0.080	<0.080	<0.080	<0.080	<0.080	<0.080							<0.080
	Diuron	1.5		1.1	0.59	0.24	<0.20	<0.20	<0.20							0.31
	<i>Hyalella azteca</i>		93.75										97.5			
	<i>Pimephales promelas</i>	100														100
	<i>Selenastrum capricornutum</i>	3458000														4558000
2011	Date	2/23/2011	3/8/2011	4/12/2011	5/10/2011	6/14/2011	7/12/11	8/9/2011	9/12	9/13	10/11/2011	11/8/2011	12/13/2011			
	<i>Ceriodaphnia dubia</i>	100	100	100	100	100	100	70			100	100	100			100
	Chlorpyrifos	<0.0026	<0.0026	<0.0026	<0.0026	<0.0026	<0.0026	<0.0026	<0.0026		<0.0026	<0.0026	<0.0026	<0.0026		<0.0026
	DDE(p,p')	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004		<0.004	<0.004	<0.004	<0.004		<0.004
	Diazinon	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004		<0.004	<0.004	<0.004	<0.004		<0.004
	Dimethoate	<0.080	<0.080	<0.080	<0.080	<0.080	<0.080	<0.080	<0.080		<0.080	<0.080	<0.080	<0.080		<0.080
	Diuron	0.85	0.31	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20		<0.20	<0.20	<0.20	<0.20		<0.20
	<i>Hyalella azteca</i>												97.5			
	<i>Pimephales promelas</i>	100	90	95	100	92.5	97.5	92.5			97.5	95	100	100		100
	<i>Selenastrum capricornutum</i>	3655000	3068000	5028000	5745000	3977000	4308000	5220000	4928000	4155000	4110000	3768000				
2012	Date	1/10/2012	2/14/2012	3/12	3/13	4/10/2012	5/8/2012	6/12/2012	7/10/2012	8/14/2012	9/10/2012					
	<i>Ceriodaphnia dubia</i>	100	95		100	95	100	100	100							95
	Chlorpyrifos	<0.0026	<0.0026		<0.0026	<0.0026	<0.0026	<0.0026	<0.0026							<0.0026
	DDE(p,p')	<0.004	<0.004		<0.004	<0.004	<0.004	<0.004	<0.004							<0.004
	Diazinon	<0.004	<0.004		<0.004	<0.004	<0.004	<0.004	<0.004							<0.004
	Dimethoate	<0.080	<0.080		<0.080	90	<0.080	<0.080	0.24							<0.080
	Diuron	<0.20	0.36		<0.20	<0.20	<0.20	<0.20	<0.20							<0.20
	<i>Hyalella azteca</i>		100										92.5			
	<i>Pimephales promelas</i>	100	100													
	<i>Selenastrum capricornutum</i>	2965000	3240000													
2013	Date	1/8/13	3/11	3/12	4/9/13	5/14/13	6/11/2013	7/9/13	8/13/13							
	<i>Ceriodaphnia dubia</i>	100		100	90	100	95									95
	Chlorpyrifos	<0.0026		<0.0026	<0.0026	<0.0026	<0.0026	<0.0026	<0.0026							<0.0026
	DDE(p,p')				<0.004	<0.004	<0.004	0.12								<0.004
	Diazinon	<0.004			<0.004	<0.004	0.12									<0.004
	Dimethoate	<0.080			<0.080	<0.080	<0.080	<0.080	<0.080							1.3
	Diuron	1.0			2.3	<0.20	0.27	<0.20	<0.20							<0.20

MONITORING YEAR	MANAGEMENT PLAN CONSTITUENTS	JAN	FEB	MAR		APR	MAY	JUN	JUL	AUG	SEP		OCT	NOV	DEC
	<i>Hyalella azteca</i>			90											
	<i>Pimephales promelas</i>	100													
	<i>Selenastrum capricornutum</i>	4028000													
2014	Date	2/10/14	3/3/14	3/10/14	4/8/14	5/13/14	6/10/14	7/8/14	8/12/14	9/8/14	9/9/14	10/14/14	11/12/14	12/4/14	
	<i>Ceriodaphnia dubia</i>	100	100		95	100	100	90		100	100	95	60		
	Chlorpyrifos	<0.0026	0.037		<0.0026	<0.0026	<0.0026	<0.0026	<0.0026	<0.0026	<0.0026	<0.0026	<0.0026	<0.0026	<0.0026
	DDE(p,p')	<0.004	<0.020		<0.020	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004
	Diazinon	<0.004	<0.004		<0.004	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004
	Dimethoate	<0.080	<0.080		<0.080	<0.080	<0.080	<0.080	<0.080	0.60	0.27	0.92	<0.080	<0.080	
	Diuron	<0.20	<0.20		<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20
	<i>Hyalella azteca</i>			90							96.25				
	<i>Pimephales promelas</i>	100	100		97.5	100	100	100		100	97.5	100	100		
	<i>Selenastrum capricornutum</i>	7623000	7665000		4110000	8658000	3155000	7160000		6153000	6758000	5095000	6653000		
2015	Date	1/13/2015	2/10/2015	3/9	3/10	4/14/2015	5/12/2015	6/9/2015	7/14/2015	8/11/2015	9/14/15	9/15/15			
	<i>Ceriodaphnia dubia</i>	100	0		100	100	100	100	95	100		100			
	Chlorpyrifos	<0.0026	<0.0026		<0.0026	<0.0026	<0.0026	<0.0026	<0.0026	<0.0026	<0.0026	<0.0026			
	DDE(p,p')	<0.004	<0.004		<0.004	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004			
	Diazinon	<0.004	0.96		<0.004	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004			
	Dimethoate	<0.080	<0.080		<0.080	<0.080	<0.080	<0.080	<0.080	<0.080	<0.080	0.21			
	Diuron	<0.20	2.2		<0.20	0.27	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20			
	<i>Hyalella azteca</i>			86.25							97.5				
	<i>Pimephales promelas</i>	100	100											100	
	<i>Selenastrum capricornutum</i>	4710000	5610000											6535000	
2016	Date	1/7/2016		3/7	3/8	4/12/2016	5/10/2016	6/14/2016	7/12/2016	8/9/2016	9/12/2016			11/1/2016	
	<i>Ceriodaphnia dubia</i>	100			100	100	100	100	100	100	100			100	
	Chlorpyrifos	<0.0026			<0.0026	<0.0026	<0.0026	<0.0026	<0.0026	<0.0026	<0.0026			<0.0026	
	DDE(p,p')	<0.004			<0.004	<0.004	<0.004	<0.004	<0.004	<0.020	<0.004			<0.004	
	Diazinon	<0.004			<0.004	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004			<0.004	
	Dimethoate	<0.080			<0.080	<0.080	<0.080	<0.080	<0.080	<0.080	<0.080			<0.080	
	Diuron	<0.20			0.59	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20		<0.20	
	<i>Hyalella azteca</i>	100										91.25			
	<i>Pimephales promelas</i>	100			100									100	
	<i>Selenastrum capricornutum</i>	6428000												6535000	
2017	Date	1/10/2017		3/14/2017	4/11/2017	5/9/2017	6/13/2017								
	<i>Ceriodaphnia dubia</i>	100			100	100	90	100							
	Chlorpyrifos	0.0090			<0.0026	<0.0026	<0.0026								
	DDE(p,p')	<0.004			<0.004	<0.004	<0.004								
	Diazinon	<0.004			<0.004	<0.004	<0.004								
	Dimethoate	<0.080			<0.080	<0.080	<0.080								
	Diuron	0.32			<0.20	<0.20	<0.20								
	<i>Pimephales promelas</i>	100			100	100	100	100							
	<i>Selenastrum capricornutum</i>	6198000			6348000	5043000	5658000	6173000							

ORESTIMBA CREEK AT HWY 33

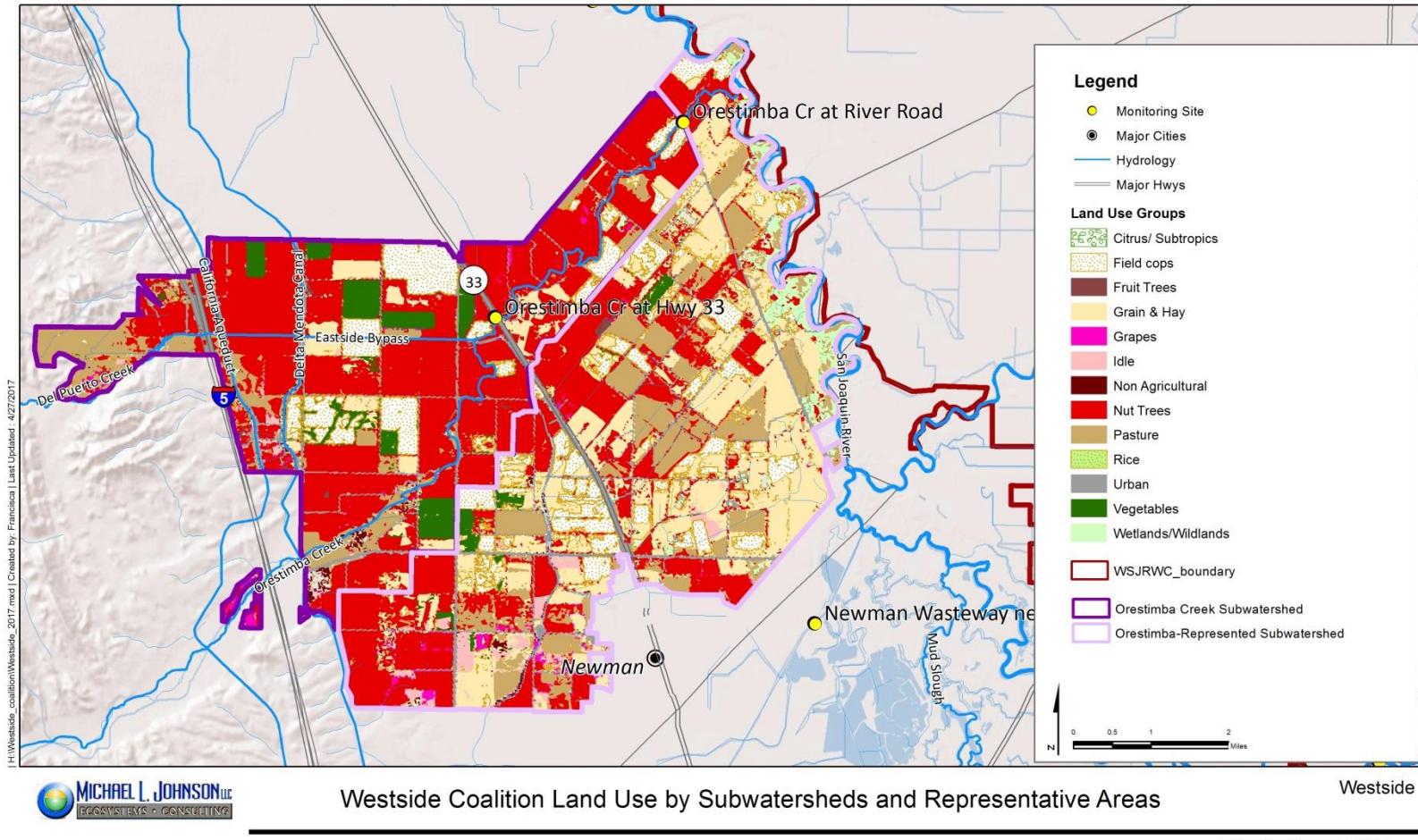
Description of Subwatershed

Orestimba Creek at Highway 33 (OCAHW) is one of two monitoring locations on Orestimba Creek; one near the discharge point to the San Joaquin River; and one upstream at Highway 33. The sites are located in Stanislaus County. The subarea includes 29,000 acres of irrigated land. The primary irrigated acreage with the subwatershed are alfalfa, almonds and oats. Orestimba Creek is similar to Del Puerto Creek in both the surrounding landscape and water quality, and is a major drainage for the Patterson Subarea. The creek is 303(d) listed, and pesticides, sediment discharge, sediment toxicity, and aquatic toxicity have been measured at these sites. Discharge at Orestimba Creek at Highway 33 is calculated through an estimated velocity and cross-sectional flow area.

Table 24. Orestimba Creek at Hwy 33 management plan constituents.

10 YEAR DEADLINE	SUBWATERSHED NAME	CONSTITUENT	LAST EXCEEDANCE
2016	Orestimba Creek at Hwy 33	<i>C. dubia</i>	2013
2016	Orestimba Creek at Hwy 33	Chlorpyrifos	2012
2016	Orestimba Creek at Hwy 33	Diazinon	2013
2016	Orestimba Creek at Hwy 33	Dimethoate	2014
2016	Orestimba Creek at Hwy 33	<i>H. azteca</i>	2017
2017	Orestimba Creek at Hwy 33	DDT	2012
2017	Orestimba Creek at Hwy 33	DDE	2014
2018	Orestimba Creek at Hwy 33	DDD	2011
2018	Orestimba Creek at Hwy 33	<i>S. capricornutum</i>	2014
2019	Orestimba Creek at Hwy 33	Diuron	2008

Figure 11. Orestimba Creek at Hwy 33 subwatershed land use map



Monitoring History Results

The Coalition initiated monitoring at Orestimba Creek at Hwy 33 in 2004 and has continued to the present.

Table 25. Orestimba Creek at Hwy 33 monitoring history for management plan constituents.

MONITORING YEAR	MANAGEMENT PLAN CONSTITUENTS	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
2004	Date							7/6/2004	8/10/2004	9/13/2004			12/29/04
	<i>Ceriodaphnia dubia</i>							0	100				100
	Chlorpyrifos							0.02J	ND				ND
	Diazinon							ND	ND				0.021
	Dimethoate							1.9	0.67Y				0.16
	<i>Hyalella azteca</i>									52.5			
	<i>Selenastrum capricornutum</i>							1090250	977500				1790000
2005	Date	2/16/05	3/8/2005	4/12/2005	5/10/2005	6/14/2005	7/12/2005	8/9/05	8/16/05		10/11/05		
	<i>Ceriodaphnia dubia</i>	70	100	100	95	100	100	0	0				
	Chlorpyrifos	ND	0.014J	ND	ND	0.029	0.032	0.12					
	Diazinon	ND	ND	ND	ND	ND	0.031	0.28					
	Dimethoate	ND	ND	ND	ND	ND	0.80	1.6					
	<i>Hyalella azteca</i>										32		
	<i>Selenastrum capricornutum</i>	2250000	2380000	2360000	2026000	3080000	2470000	1210000					
2006	Date	1/3/2006	3/13/06	3/14/06	4/4/2006	5/9/2006	6/13/2006	7/11/2006	8/9/2006	9/11/2006			
	<i>Ceriodaphnia dubia</i>	100		100	100	100	90	0	100				
	DDD(p,p')								0.014				
	DDE(p,p')	0.006			0.0078		0.011	0.087	0.29				
	DDT(p,p')							0.055	0.13				
	Chlorpyrifos	ND		ND	ND	ND	ND	0.72	0.051				
	Diazinon	ND		ND	ND	ND	ND	1.2	0.01J				
	Dimethoate	ND		ND	ND	ND	ND	0.17	0.52				
	Diuron							ND	ND				
	<i>Hyalella azteca</i>		66.25							6.25			
2007	<i>Selenastrum capricornutum</i>	2270000		2080000	2870000	2003000	1490000	1575000	665250				
	Date	2/12/07	3/12/07	3/13/07	4/10/2007	5/8/2007	6/12/2007	7/10/2007	8/14/2007				
	<i>Ceriodaphnia dubia</i>	100		80	93.3	100	0	95	100				
	Chlorpyrifos	<0.0026		<0.0026	<0.0026	<0.0026	<0.0026	0.037	0.023				
	DDD(p,p')	<0.003		<0.003	0.0065	<0.003	<0.003	<0.003	<0.003				
	DDE(p,p')	0.0049		0.023	0.022	0.02	0.033	0.078	0.029				
	DDT(p,p')	<0.007		<0.007	<0.007	<0.007	0.014	0.032	<0.007				
	Diazinon	<0.004		<0.004	<0.004	<0.004	<0.004	<0.004	<0.004				
	Dimethoate	<0.080		5.5	<0.080	<0.080	<0.80	0.53	0.33				
	Diuron	1		11	0.63	0.34	<0.2	0.58	0.84				
2008	<i>Hyalella azteca</i>		13.75										
	<i>Selenastrum capricornutum</i>	1404000		439750	2435750	2534500	1228550	970000	1490000				
	Date	1/5/2008		3/11/2008	4/8/2008	5/13/2008	6/10/2008	7/8/2008	8/12/2008				
	<i>Ceriodaphnia dubia</i>	100		95	100	0	75	0	100				
	Chlorpyrifos	0.0057		<0.003	0.005	0.11	<0.003	0.47	0.11				
	DDD(p,p')	<0.003		<0.003	<0.003	<0.003	<0.003	<0.003	<0.003				

MONITORING YEAR	MANAGEMENT PLAN CONSTITUENTS	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	
2009	DDE(p,p')	0.01		0.0054	0.021	0.018	0.038	0.028	0.032					
	DDT(p,p')	<0.007		<0.007	0.011	<0.007	0.02	0.014	0.012					
	Diazinon	0.01		<0.004	<0.004	<0.004	<0.004	<0.004	<0.004					
	Dimethoate	<0.080		<0.080	0.37	<0.080	<0.080	0.41	0.44					
	Diuron	3.3		1	0.23	<0.2	<0.2	<0.2	<0.20					
	<i>Selenastrum capricornutum</i>	2290000		4240000	2040000	4960000	1400000	3500000	3073000					
	Date	2/18/09	3/9/09	3/10/09	4/14/2009	5/12/2009	6/9/2009	7/14/2009	8/11/2009		10/15/09			
	<i>Ceriodaphnia dubia</i>	100		100	95	100	100	90	70					
	Chlorpyrifos	<0.003		<0.003	<0.003	<0.0026	<0.0026	<0.0026	<0.0026					
	DDD(p,p')	<0.003		<0.003	<0.003	<0.003	<0.003	<0.003	<0.003					
	DDE(p,p')	<0.004		<0.004	<0.004	0.013	0.0089	0.012	0.014		0.0095			
	DDT(p,p')	<0.007		<0.007	<0.007	<0.007	<0.007	<0.007	<0.007					
	Diazinon	<0.004		<0.004	<0.004	<0.004	<0.004	<0.004	<0.004		0.13			
	Dimethoate	<0.080		<0.080	<0.080	<0.080	<0.080	<0.080	0.44					
	Diuron	<0.20		1.8	<0.20	<0.20	<0.20	<0.20	<0.20					
2010	<i>Hyalella azteca</i>		88.75											
	<i>Selenastrum capricornutum</i>	4098000		2355000	3055000	2598000	3840000	2710000	2745000					
	Date	1/26/10		3/9/2010	4/13/2010	5/11/2010	6/8/2010	7/14/2010	8/10/2010					
	<i>Ceriodaphnia dubia</i>	95		90	100	100	100	95	85					
	Chlorpyrifos	<0.0026		<0.0026	<0.0026	<0.0026	0.079	0.032	<0.0026					
	DDD(p,p')	<0.003		<0.003	<0.003	0.0036	<0.003	<0.003	<0.003					
	DDE(p,p')	<0.004		0.0066	0.012	0.022	0.012	0.022	0.023					
	DDT(p,p')	<0.007		<0.007	<0.007	<0.007	<0.007	0.0091	0.0085					
	Diazinon	<0.004		<0.004	<0.004	<0.004	<0.004	<0.004	<0.004					
	Dimethoate	<0.080		<0.080	<0.080	<0.080	<0.080	<0.080	0.57					
	Diuron	<0.20		1.6	<0.20	0.20	<0.20	<0.20	<0.20					
	<i>Selenastrum capricornutum</i>	4545000		2314000	3823000	3828000	2990000	3398000	1623000					
	Date	1/3/2011	2/22/11	3/8/2011	4/12/2011	5/10/2011	6/14/2011	7/12/2011	8/9/2011	9/12	9/13	10/11/11	11/8/11	12/13/11
2011	<i>Ceriodaphnia dubia</i>	100	100	100	100	100	100	100	100	100	95	100	60	
	Chlorpyrifos	<0.0026	<0.0026	<0.0026	<0.0026	<0.0026	<0.0026	<0.0026	<0.0026	0.09	<0.0026	<0.0026	<0.0026	
	DDD(p,p')	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	0.0059	
	DDE(p,p')	<0.004	0.013	0.0076	0.0063	0.021	0.015	0.02	0.086	0.026	0.017	0.021	0.048	
	DDT(p,p')	<0.007	<0.007	<0.007	<0.007	<0.007	<0.007	0.0093	0.041	<0.007	<0.007	<0.007	<0.007	
	Diazinon	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004	1.1	<0.004	<0.004	<0.004	
	Dimethoate	<0.080	<0.080	<0.080	<0.080	<0.080	<0.080	<0.080	0.35		<0.080	<0.080	0.56	
	Diuron	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	0.25	
	<i>Hyalella azteca</i>										0			
	<i>Selenastrum capricornutum</i>	4280000	4250000	2835000	4085000	5540000	4017000	4428000	3980000		4580000	3925000	4063000	3443000
	Date			3/12/12	3/13/12	4/10/2012	5/8/2012	6/12/2012	7/10/2012	8/14/2012	9/10/2012			
2012	<i>Ceriodaphnia dubia</i>			100	100	100	100	95	95					
	Chlorpyrifos				<0.0026	<0.0026	<0.0026	<0.0026	<0.0026	<0.0026	<0.17			
	DDD(p,p')				<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	0.022			
	DDE(p,p')				0.015	0.044	<0.004	0.028	0.09	0.27	0.14			

MONITORING YEAR	MANAGEMENT PLAN CONSTITUENTS	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
2013	DDT(p,p')			<0.007	<0.007	<0.007	<0.007	0.043	0.11	0.025			
	Diazinon			<0.004	<0.004	<0.004	<0.004	<0.004	<0.004				
	Dimethoate			<0.080	<0.080	<0.080	<0.080	0.11	0.47				
	Diuron			0.25	0.44	<0.20	<0.20	<0.20	<0.20				
	<i>Hyalella azteca</i>			36.25							10		
	<i>Selenastrum capricornutum</i>			2000000	2210000	1278000	1063000	4110000	3698000				
	Date	1/8/2013		3/12/2013	4/9/2013	5/14/2013	6/11/2013	7/9/2013	8/13/2013				
	<i>Ceriodaphnia dubia</i>	100		95	100	0	95	100	100				
	Chlorpyrifos	<0.0026		<0.0026	<0.0026	<0.0026	<0.0026	<0.0026	<0.0026				
	DDD(p,p')			<0.003	<0.003	<0.003	<0.003	<0.003	<0.003				
	DDE(p,p')			0.011	0.011	0.012	0.015	0.019	0.0069				
	DDT(p,p')			<0.007	<0.007	<0.007	<0.007	<0.007	<0.007				
	Diazinon	<0.004		<0.004	<0.004	1.3	<0.004	<0.004	<0.004				
	Dimethoate	<0.080		<0.080	<0.080	<0.080	<0.080	<0.080	<0.080				
2014	Diuron	1.2		0.63	0.57	<0.20	<0.20	<0.20	<0.20				
	<i>Selenastrum capricornutum</i>	3755000		5380000	4825000	6793000	5485000	5158000	5190000				
	Date	2/10/14	3/3/14	3/10/14	4/8/2014	5/13/2014	6/10/2014			8/12/2014	9/8/14	9/9/14	12/4/14
	<i>Ceriodaphnia dubia</i>	100	100		100	100	95				95		95
	Chlorpyrifos	<0.0026	<0.0026		<0.0026	<0.0026	<0.0026			<0.0026	<0.0026		<0.0026
	DDD(p,p')	<0.003	<0.003		<0.003	<0.003	<0.003			<0.003	<0.003		<0.003
	DDE(p,p')	<0.004	0.0083		<0.004	<0.004	<0.004			<0.004	<0.004		<0.004
	DDT(p,p')	<0.007	<0.007		<0.007	<0.007	<0.007			<0.007	<0.007		<0.007
	Diazinon	<0.004	<0.004		<0.004	<0.004	<0.004			<0.004	<0.004		<0.004
	Dimethoate	<0.080	<0.080		3.6	<0.080	<0.080			<0.080	<0.080		<0.080
	Diuron	<0.20	<0.20		<0.20	<0.20	<0.20			<0.20	<0.20		<0.20
	<i>Hyalella azteca</i>			76.25							57.5		
	<i>Selenastrum capricornutum</i>	5245000	2675000		1330000	6490000	5950000				5985000		6408000
2015	Date	1/13/15	2/10/15	3/9/15	3/10/15	4/14/2015		6/9/2015					
	<i>Ceriodaphnia dubia</i>	100	100		100	100		100					
	Chlorpyrifos	0.21	0.013		<0.0026	<0.0026		<0.0026					
	DDD(p,p')	<0.003	<0.003		<0.003	<0.003		<0.003					
	DDE(p,p')	<0.004	<0.004		<0.004	<0.004		<0.004					
	DDT(p,p')	<0.007	<0.007		<0.007	<0.007		<0.007					
	Diazinon	<0.004	<0.004		<0.004	<0.004		<0.004					
	Dimethoate	<0.080	<0.080		<0.080	<0.080		<0.080					
	Diuron	<0.20	<0.20		<0.20	<0.20		<0.20					
	<i>Hyalella azteca</i>			85									
	<i>Selenastrum capricornutum</i>	5430000	5765000		5410000	3700000		2333000					
2016	Date			3/8/2016									
	<i>Ceriodaphnia dubia</i>			100									
	Chlorpyrifos			<0.0026									
	DDD(p,p')			<0.003									
	DDE(p,p')			<0.004									

MONITORING YEAR	MANAGEMENT PLAN CONSTITUENTS	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
	DDT(p,p')			<0.007									
	Diazinon			<0.004									
	Dimethoate			<0.080									
	Diuron			<0.20									
2017	Date	1/10/17		3/13/17	3/14/17	4/11/2017							
	<i>Ceriodaphnia dubia</i>	100			100	100							
	Chlorpyrifos	<0.0026			<0.0026	<0.0026							
	DDD(p,p')	<0.003			<0.003	<0.003							
	DDE(p,p')	<0.004			<0.004	<0.004							
	DDT(p,p')	<0.007			<0.007	<0.007							
	Diazinon	<0.004			<0.004	<0.004							
	Dimethoate	<0.080			<0.080	<0.080							
	Diuron	<0.20			<0.20	<0.20							
	<i>Hyalella azteca</i>			11.25									
	<i>Selenastrum capricornutum</i>	4828000			4933000	5145000							

ORESTIMBA CREEK AT RIVER ROAD

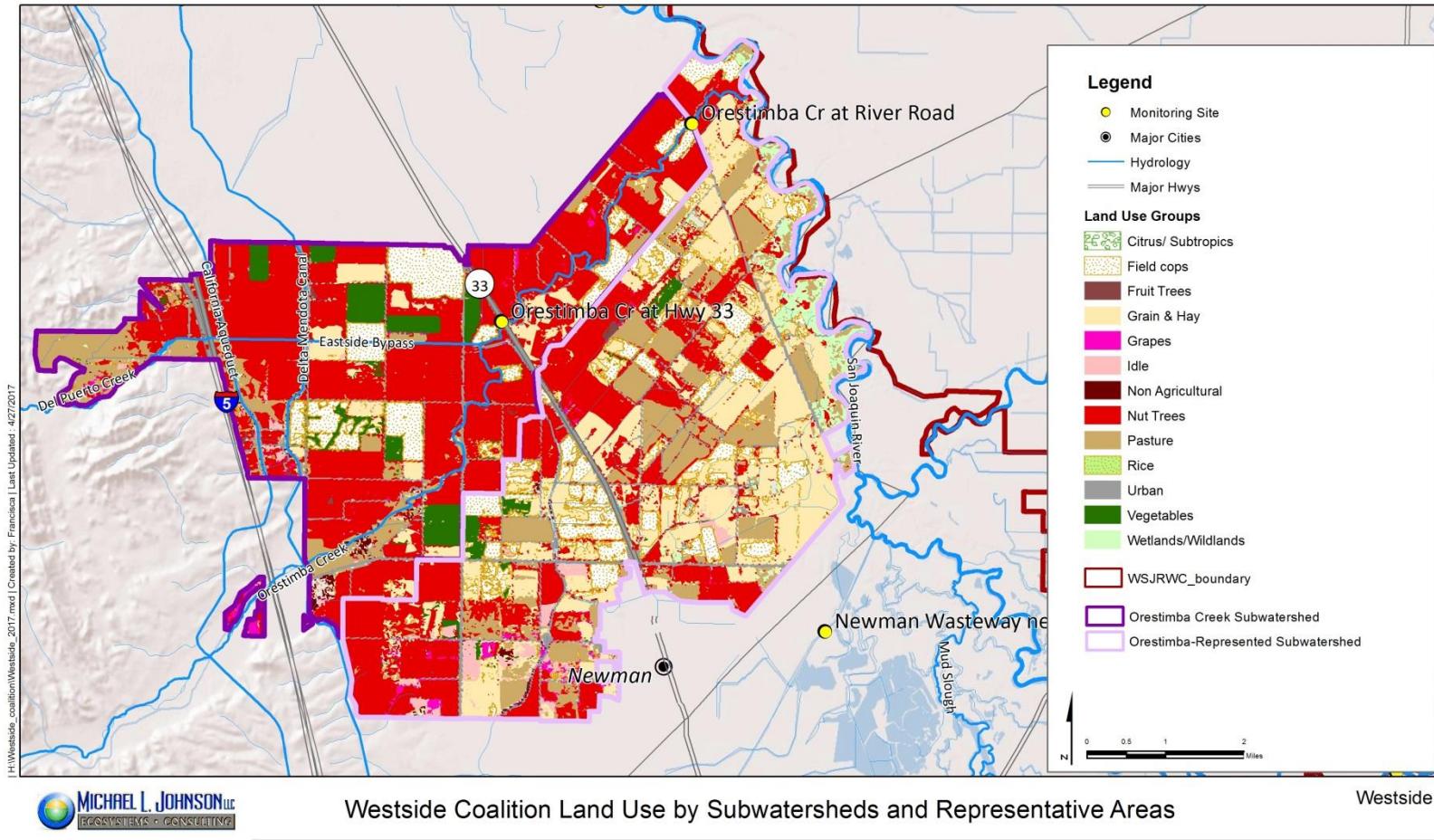
Description of Subwatershed

Orestimba Creek at River Road (OCARR) is one of two monitoring locations on Orestimba Creek; one near the discharge point to the San Joaquin River; and one upstream at Highway 33. The sites are located in Stanislaus County. The subarea includes 29,000 acres of irrigated area. The primary irrigated acreage within the subwatershed include alfalfa, almonds and oats. Orestimba Creek is similar to Del Puerto Creek in both the surrounding landscape and water quality, and is a major drainage for the Patterson Subarea. The creek is 303(d) listed, and pesticides, sediment discharge, sediment toxicity, and aquatic toxicity have been measured at these sites. USGS monitors and reports flow at Orestimba Creek at River Road. Discharge at Orestimba Creek at Highway 33 is calculated through an estimated velocity and cross-sectional flow area.

Table 26. Orestimba Creek at River Road management plan constituents.

10 YEAR DEADLINE	SUBWATERSHED NAME	CONSTITUENT	LAST EXCEEDANCE
2016	Orestimba Creek at River Road	Chlorpyrifos	2017
2016	Orestimba Creek at River Road	Methyl-Parathion	2005
2017	Orestimba Creek at River Road	<i>C. dubia</i>	2011
2017	Orestimba Creek at River Road	DDE	2017
2017	Orestimba Creek at River Road	DDT	2011

Figure 12. Orestimba Creek at River Road subwatershed land use map



Monitoring History Results

The Coalition initiated monitoring at Orestimba Creek at River Road in 2004 and has continued to the present.

Table 27. Orestimba Creek at River Road monitoring history for management plan constituents.

MONITORING YEAR	MANAGEMENT PLAN CONSTITUENTS	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
2004	Date							7/6/2004	8/10/2004				12/29/2004
	<i>Ceriodaphnia dubia</i>							95	100				100
	Chlorpyrifos							ND	ND				ND
	Parathion, methyl							0.56	ND				ND
2005	Date	2/16/2005	3/8/2005	4/12/2005	5/10/2005	6/14	6/22	7/12/2005	8/9/2005				
	<i>Ceriodaphnia dubia</i>	95	95	100	95	0	95	100	65				
	Chlorpyrifos	ND	0.015	ND	ND	0.043		0.035	0.063				
	Parathion, methyl	ND	ND	ND	ND	1.4		ND	ND				
2006	Date	1/3/2006	3/14/2006	4/4/2006	5/9/2006	6/13/2006	7/11/2006	8/9/2006					
	<i>Ceriodaphnia dubia</i>	100		100	95	100	100	0	100				
	Chlorpyrifos	ND		ND	ND	0.032		0.51	0.052				
	DDE(p,p')	0.019			0.022		0.013	0.078	0.031				
	DDT(p,p')							0.029	0.013				
2007	Parathion, methyl	ND		ND	ND	ND	ND	ND	ND				
	Date	2/12/2007	3/13/2007	4/10/2007	5/8/2007	6/12/2007	7/10/2007	8/14/2007					
	<i>Ceriodaphnia dubia</i>	100	100	100	100	100	0	100					
	Chlorpyrifos	<0.00259	<0.00259	<0.00259	<0.00259	<0.00259		0.17	0.056				
	DDE(p,p')	0.0047	0.0084	0.0073	0.0068	0.01	0.031	0.014					
2008	DDT(p,p')	<0.007	<0.007	<0.007	<0.007	<0.007	<0.007	<0.007	<0.007				
	Parathion, methyl	<0.0755	<0.0755	<0.0755	<0.0755	<0.0755	<0.0755	<0.08	<0.08				
	Date	1/5/2008	3/11/2008	4/8/2008	5/13/2008	6/10/2008	7/8/2008	8/12/2008					
	<i>Ceriodaphnia dubia</i>	100		95	20	0	100	0	100				
	Chlorpyrifos	0.0091		<0.003	<0.003	1.8	<0.003	0.42	0.34				
2009	DDE(p,p')	0.015		0.031	<0.004	0.0057	0.025	0.013	0.015				
	DDT(p,p')	<0.007		0.043	<0.007	<0.007	<0.007	<0.007	<0.007				
	Parathion, methyl	<0.08		<0.075	<0.075	<0.075	<0.075	<0.075	<0.075				
	Date	2/18/2009	3/10/2009		5/12/2009	6/9/2009	7/14/2009	8/11/2009					10/15/2009
	<i>Ceriodaphnia dubia</i>	100	100		100	100	0	35					100
2010	Chlorpyrifos	0.0081	<0.003		<0.0026	<0.0026	1.6	0.078					<0.0026
	DDE(p,p')	0.0058	<0.004		0.0089	0.0098	0.009	0.011					0.0082
	DDT(p,p')	<0.007	<0.007		<0.007	<0.007	<0.007	<0.007	<0.007				<0.007
	Parathion, methyl	<0.075	<0.075		<0.075	<0.075	<0.075	<0.075	<0.075				<0.075
	Date	1/26/2010		3/9/2010	4/13/2010	5/11/2010	6/8/2010	7/14/2010	8/10/2010				
2011	<i>Ceriodaphnia dubia</i>	100		100	100	100	95	100	95				
	Chlorpyrifos	<0.0026		<0.0026	<0.0026	0.011	0.20	0.06	<0.0026				
	DDE(p,p')	<0.004		0.0052	<0.004	0.026	0.015	0.0082	0.007				
	DDT(p,p')	<0.007		<0.007	<0.007	<0.007	<0.007	<0.007	<0.007				
2011	Parathion, methyl	<0.075		<0.075	<0.075	<0.075	<0.075	<0.075	<0.075				
	Date	1/3/2011	2/22/2011	3/8/2011	4/12/2010	5/10/2011	6/14/2011	7/12/2011	8/9/2011	9/13/2011	10/11/2011		
	<i>Ceriodaphnia dubia</i>	100	100	80	100	90	100	100	100	100	95		

MONITORING YEAR	MANAGEMENT PLAN CONSTITUENTS	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	Nov	DEC
	Chlorpyrifos	<0.0026	<0.0026	<0.0026	0.068	0.054	<0.0026	<0.0026	<0.0026	<0.0026	<0.0026	<0.0026	
	DDE(p,p')	<0.004	0.0075	0.0053	0.0073	0.022	<0.004	0.013	0.024	0.0082	0.0049		
	DDT(p,p')	<0.007	<0.007	<0.007	<0.007	<0.007	<0.007	<0.007	0.0098	<0.007	<0.007		
	Parathion, methyl	<0.075	<0.075	<0.075	<0.075	<0.075	<0.075	<0.075	<0.075	<0.075	<0.075	<0.075	
2012	Date		3/13/2012	4/10/2012		6/12/2012	7/10/2012	8/14/2012					
	<i>Ceriodaphnia dubia</i>		100	100		100	100	95					
	Chlorpyrifos		<0.0026	<0.0026		<0.0026	<0.0026	<0.0026					
	DDE(p,p')			0.0056	0.0074		0.058	<0.004	0.031				
	DDT(p,p')			<0.007	<0.007		<0.007	<0.007	<0.007				
	Parathion, methyl		<0.075	<0.075		<0.075	<0.075	<0.075	<0.075				
2013	Date	1/8/2013											
	<i>Ceriodaphnia dubia</i>	100											
	Chlorpyrifos	<0.0026											
	Parathion, methyl	<0.08											
2016	Date		3/8/2016										
	<i>Ceriodaphnia dubia</i>		100										
	Chlorpyrifos		<0.0026										
	DDE(p,p')			0.0069									
	DDT(p,p')			<0.007									
	Parathion, methyl		<0.075										
2017	Date	1/10/2017		3/14/2017	4/11/2017	5/9/2017							
	<i>Ceriodaphnia dubia</i>	100		100	100	95							
	Chlorpyrifos	<0.0026		<0.0026	0.036	<0.0026							
	DDE(p,p')	0.0074		<0.004	0.0044	<0.004							
	DDT(p,p')	<0.007		<0.007	<0.007	<0.007							
	Parathion, methyl	<0.075		<0.075	<0.08	<0.08							

POSO SLOUGH AT INDIANA AVE

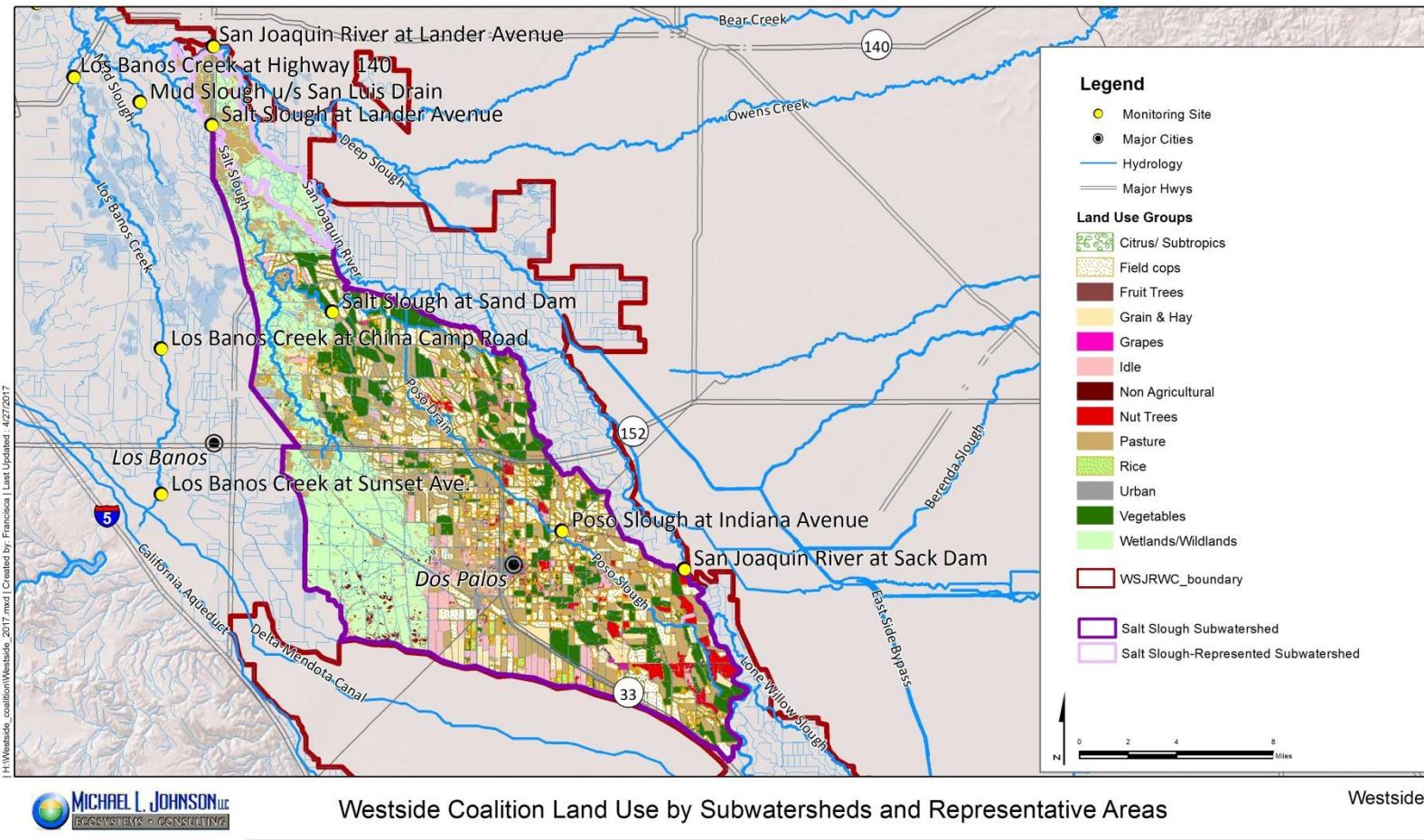
Description of Subwatershed

Poso Slough at Indiana Avenue (PSAIA) is located on Poso Slough near the boundary between San Luis Canal Company and Central California Irrigation District in the Dos Palos Subarea of the Westside Coalition region in Merced and Fresno Counties. Flow at this site is calculated as an estimated velocity and measured flow area. The Coalition began monitoring this site in 2008. Poso Slough is a tributary to Salt Slough, discharging upstream of the Salt Slough at Sand Dam monitoring site.

Table 28. Poso Slough at Indiana Ave management plan constituents.

10 YEAR DEADLINE	SUBWATERSHED NAME	CONSTITUENT	LAST EXCEEDANCE
2019	Poso Slough at Indiana Ave	Chlorpyrifos	2014
2019	Poso Slough at Indiana Ave	Diuron	2013
2021	Poso Slough at Indiana Ave	<i>S. capricornutum</i>	2012
2022	Poso Slough at Indiana Ave	<i>C. dubia</i>	2016
2024	Poso Slough at Indiana Ave	Malathion	2015
2025	Poso Slough at Indiana Ave	Dimethoate	2014

Figure 13. Poso Slough at Indiana Ave subwatershed land use map



Monitoring History Results

The Coalition initiated monitoring at Poso Slough at Indiana Ave in 2008 and has continued to the present.

Table 29. Poso Slough at Indiana Ave monitoring history for management plan constituents.

MONITORING YEAR	MANAGEMENT PLAN CONSTITUENTS	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	Nov	DEC
2008	Date			3/18/2008	4/8/2008	5/13/2008	6/10/2008	7/8/2008	8/12/2008				
	<i>Ceriodaphnia dubia</i>			90	100	80	100	100	100				
	Chlorpyrifos			<0.0026	0.004	0.11	<0.0026	0.075					
	Dimethoate			<0.08	<0.08	<0.08	<0.08	<0.08	0.38				
	Diuron			24	0.43	4.6	1.6	0.34	0.25				
	Malathion			<0.050	<0.050	<0.050	<0.050	<0.050	<0.050				
2009	<i>Selenastrum capricornutum</i>			245000	3230000	2430000	3457000	4777000	4671000				
	Date	2/12/2009											12/9/2009
	<i>Ceriodaphnia dubia</i>	100											100
	Chlorpyrifos	0.022											<0.0026
	Dimethoate	<0.080											<0.080
	Diuron	0.69											<0.20
2010	Malathion	<0.050											<0.050
	<i>Selenastrum capricornutum</i>	3938000											3378000
	Date	1/21/2010											12/21/2010
	<i>Ceriodaphnia dubia</i>	95											100
	Chlorpyrifos	<0.0026											<0.0026
	Dimethoate	<0.080											<0.080
2011	Diuron	38											0.85
	Malathion	<0.050											<0.050
	<i>Selenastrum capricornutum</i>	0											3668000
	Date	2/23/2011	3/8/2011	4/12/2011	5/10/2011	6/14/2011	7/12/2011	8/9/2011	9/13/2011	10/11/2011	11/8/2011		12/13/2011
	<i>Ceriodaphnia dubia</i>	100	90	95	95	75	100	0	90	100	0		100
	Chlorpyrifos	<0.0026	<0.0026	<0.0026	<0.0026	<0.0026	<0.0026	1.3	0.12	<0.0026	<0.0026		<0.0026
2012	Dimethoate	<0.080	<0.080	<0.080	<0.080	<0.080	<0.080	<0.080	<0.080	<0.080	<0.080		<0.080
	Diuron	16	3.8	0.27	1.9	0.22	<0.20	<0.20	<0.20	<0.20	<0.20		2.5
	Malathion	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050		<0.050
	<i>Selenastrum capricornutum</i>	612500	1610000	4718000	2850000	5227000	5000000	4468000	5105000	2780000	4693000		2290000
	Date	1/10/2012	2/14/2012	3/13/2012	4/10/2012	5/8/2012	6/12/2012	7/10/2012	8/14/2012				
	<i>Ceriodaphnia dubia</i>	70	100	100	0	100	100	100	100				
2013	Chlorpyrifos	<0.0026	<0.0026	0.0076	0.66	<0.0026	<0.0026	<0.0026	<0.0026				
	Dimethoate	<0.080	<0.080	<0.080	<0.080	<0.080	<0.080	<0.080	0.14				
	Diuron	1.9	6.8	0.24	0.29	3.1	0.27	0.28	<0.20				
	Malathion	<0.050	<0.050	0.25	<0.050	<0.050	<0.050	<0.050	<0.050				
	<i>Selenastrum capricornutum</i>	2875000	408500	3460000	4305000	1198000	3585000	4835000	3970000				
	Date	1/8/2013		3/12/2013	4/9/2013	5/14/2013	6/11/2013	7/9/2013	8/13/2013				
2013	<i>Ceriodaphnia dubia</i>	100		0	100	100	100	100	100				
	Chlorpyrifos	<0.0026		0.13	<0.0026	0.26	0.050	<0.0026	<0.0026				
	Dimethoate	<0.080		<0.080	4.4	<0.080	<0.080	<0.080	<0.080				
	Diuron	1.9		0.62	0.23	2.3	<0.20	0.24	<0.20				

MONITORING YEAR	MANAGEMENT PLAN CONSTITUENTS	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
	Malathion	<0.050		3.9	<0.050	<0.030	<0.030	<0.030	<0.030				
	<i>Selenastrum capricornutum</i>	3688000		6290000	4948000	5263000	7028000	5910000	4210000				
2014	Date	2/10/2014	3/3/2014	4/8/2014	5/13/2014	6/10/2014	7/8/2014	8/12/2014	9/9/2014	10/14/2014	11/12/2014	12/4/2014	
	<i>Ceriodaphnia dubia</i>	100	100	100	100	100	100		100	100	100	100	95
	Chlorpyrifos	<0.0026	0.092	0.040	<0.0026	<0.0026	<0.0026		0.066	0.048	<0.0026	<0.0026	<0.0026
	Dimethoate	<0.080	2.2	<0.080	<0.080	<0.080	<0.080	<0.080	<0.080	<0.080	<0.080	<0.080	<0.080
	Diuron	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20
	Malathion	<0.030	<0.030	<0.030	<0.030	<0.030	<0.030	<0.030	<0.030	<0.030	<0.030	<0.030	<0.030
	<i>Selenastrum capricornutum</i>	5058000	6870000	6535000	7448000	7070000	6085000		5543000	7840000	5088000	6363000	
2015	Date	3/10/2015	4/14/2015	5/12/2015	6/9/2015	7/14/2015			9/15/2015				
	<i>Ceriodaphnia dubia</i>	100	100	100	100	100			100				
	Chlorpyrifos	<0.0026	<0.0026	<0.0026	<0.0026	<0.0026			<0.0026				
	Dimethoate	0.30	<0.080	<0.080	<0.080	<0.080			<0.080				
	Diuron	0.35	<0.20	0.59	<0.20	<0.20			<0.20				<0.20
	Malathion	<0.030	<0.030	<0.030	<0.030	<0.030	<0.030	<0.030		0.037			
	<i>Selenastrum capricornutum</i>	5723000	4130000	5045000	7050000	4368000			5215000				
2016	Date	3/8/2016		5/10/2016	6/14/2016	7/12/2016	8/9/2016	9/13/2016	10/11/2016	11/1/2016			
	<i>Ceriodaphnia dubia</i>	100		100	100	100	0						95
	Chlorpyrifos	<0.0026		<0.0026	<0.0026	<0.0026	<0.0026	<0.0026	<0.0026	<0.0026	<0.0026	<0.0026	<0.0026
	Dimethoate	<0.080		<0.080	<0.080	<0.080	<0.080	<0.080	<0.080	<0.080	<0.080	<0.080	<0.080
	Diuron	<0.20		<0.20	<0.20	<0.20	<0.20	<0.20					<0.20
	Malathion	<0.030		<0.030	<0.030	<0.030	<0.030	<0.030	<0.030	<0.030	<0.030	<0.030	<0.030
	<i>Selenastrum capricornutum</i>			6013000	5923000	5815000	6910000						5283000
2017	Date	3/14/2017	4/11/2017	5/9/2017	6/13/2017								
	<i>Ceriodaphnia dubia</i>	90	100	100	95								
	Chlorpyrifos	<0.0026	<0.0026	<0.0026									
	Dimethoate	1.0	<0.080	<0.080									
	Diuron	<0.20	<0.20	<0.20									
	Malathion	<0.030	<0.030	<0.030	<0.030								
	<i>Selenastrum capricornutum</i>	5733000	5435000	4765000	5568000								

RAMONA LAKE NEAR FIG AVE

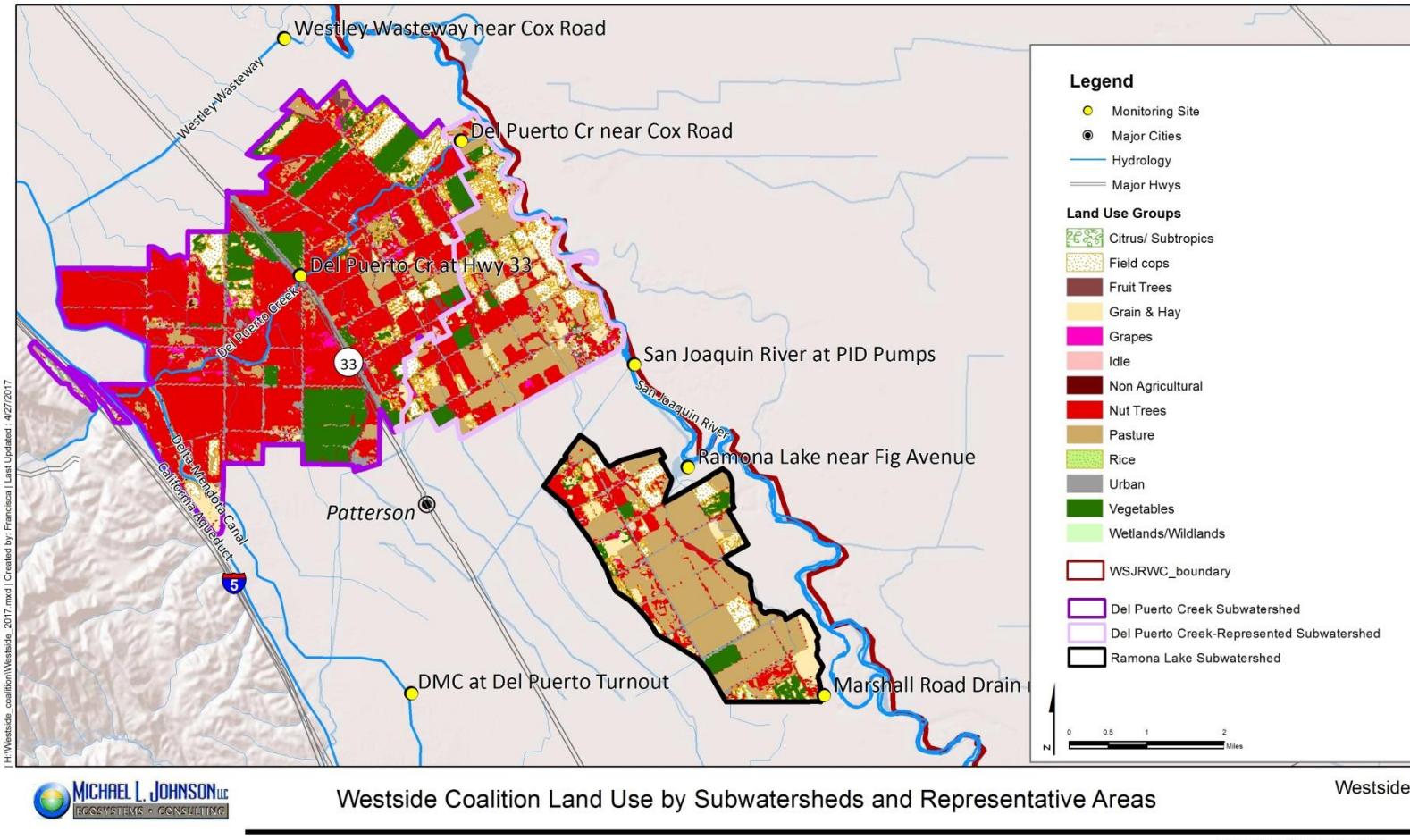
Description of Subwatershed

Ramona Lake near Fig Avenue (ROLFA) is located in Stanislaus County. The subarea includes 45,000 acres of irrigated area. The primary land irrigated acreage within the subwatershed are alfalfa, almonds, and tomatoes. This site monitors discharge from a small lake as it flows into the San Joaquin River. Agricultural and stormwater runoff from the Patterson Subarea can discharge into the lake. This site has been monitored for a variety of constituents since 2004 and some pesticides have been detected at measurable concentrations at this site.

Table 30. Ramona Lake Near Fig Ave management plan constituents.

10 YEAR DEADLINE	SUBWATERSHED NAME	CONSTITUENT	LAST EXCEEDANCE
2017	Ramona Lake near Fig Ave	Chlorpyrifos	2015
2019	Ramona Lake near Fig Ave	<i>C. dubia</i>	2009
2020	Ramona Lake near Fig Ave	Diuron	2009
2021	Ramona Lake near Fig Ave	DDE	2012
2024	Ramona Lake near Fig Ave	<i>H. azteca</i>	2013

Figure 14. Ramona Lake near Fig Ave subwatershed land use map



Monitoring History Results

The Coalition initiated monitoring at Ramona Lake near Fig Ave in 2004 and has continued to the present.

Table 31. Ramona Lake near Fig Ave monitoring history for management plan constituents.

MONITORING YEAR	MANAGEMENT PLAN CONSTITUENTS	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
2004	Date							7/6/2004	8/10/2004				
	<i>Ceriodaphnia dubia</i>							0	100				
	Chlorpyrifos							ND	0.096				
	DDE							0.028					
2005	Date	1/11/2005	2/15/2005			5/10/2005		7/12/2005	8/9/2005				
	<i>Ceriodaphnia dubia</i>	100	90			100		100	95				
	Chlorpyrifos	ND	ND			ND		0.015J	ND				
								7/17/2006	8/8/2006				
2006	Date												
	<i>Ceriodaphnia dubia</i>							5	100				
	Chlorpyrifos							0.29	ND				
	Diuron							ND	ND				
2007	Date	2/12/2007	3/13/2007	4/10/2007	5/8/2007	6/12/2007	7/10/2007	8/14/2007	9/10/2007				
	<i>Ceriodaphnia dubia</i>	100	100	100	100	100	100	100	100				
	Chlorpyrifos	<0.0026	<0.0026	<0.0026	<0.0026	<0.0026	0.01	<0.0026					
	DDE(p,p')	<0.004	<0.004	<0.004	0.004	<0.004	0.0051	<0.004					
	Diuron	0.23	1.8	0.68	0.38	0.26	<0.2	<0.2					
	<i>Hyalella azteca</i>									91.25			
2008	Date	1/6/2008	3/18/2008	4/8/2008	5/13/2008	6/10/2008	7/8/2008	8/12/2008	9/9/2008				
	<i>Ceriodaphnia dubia</i>	0		100	100	100	100	100					
	Chlorpyrifos			0.0035	<0.0026	<0.0026	<0.0026	<0.0026	<0.0026				
	DDE(p,p')			<0.004	<0.004	<0.004	<0.004	<0.004	<0.004				
	Diuron			0.49	5	1.7	0.71	0.27					
2009	<i>Hyalella azteca</i>		68.8							98.75			
	Date		3/9/2009	4/14/2009	5/12/2009	6/9/2009	7/14/2009	8/11/2009	9/14/2009	10/14/2009			
	<i>Ceriodaphnia dubia</i>			100	95	100	100	100		40			
	Chlorpyrifos			<0.0026	<0.0026	<0.0026	<0.0026	<0.0026		<0.0026			
	DDE(p,p')			<0.004	<0.004	<0.004	<0.004	<0.004		<0.004			
2010	Diuron			1.3	3.6	0.98	0.54	0.21		<0.20			
	<i>Hyalella azteca</i>		97.5							92.5			
	Date	1/25/2010	3/8	3/9	4/13/2010	5/11/2010	6/8/2010	7/14/2010	8/10/2010	9/13/2010			
	<i>Ceriodaphnia dubia</i>	95		100	100	100	90	100	95			100	
	Chlorpyrifos	<0.0026		0.013	<0.0026	0.015	<0.0026	0.014	<0.0026			<0.0026	
2011	DDE(p,p')	<0.004		<0.004	<0.004	<0.004	<0.004	<0.004	0.0042			<0.004	
	Diuron	<0.20		<0.20	<0.20	<0.20	<0.20	<0.20	<0.20			<0.20	
	<i>Hyalella azteca</i>		93.75							92.5			
	Date		3/8/2011	4/12/2011	5/10	5/24	6/14/2011	7/12/2011	8/9/2011	9/12	9/13	10/11/2011	12/13/11
	<i>Ceriodaphnia dubia</i>		100	100	95		100	100	100	100	100		100
2011	Chlorpyrifos		<0.0026		<0.0026	0.065		<0.0026	<0.0026	<0.0026	0.089	<0.0026	<0.0026
	DDE(p,p')			<0.004	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004
	Diuron		0.26	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20

	<i>Hyalella azteca</i>					92.5				96.3			
2012	Date	1/11/2012	2/14/2012	3/12	3/13	4/10/2012	5/8/2012	6/12/2012	7/10/2012	8/14/2012	9/10/2012		
	<i>Ceriodaphnia dubia</i>	90	100		95	95	100	100	100	90			
	Chlorpyrifos	<0.0026	<0.0026		<0.0026	<0.0026	<0.0026	<0.0026	<0.0026	<0.0026			
	DDE(p,p')	<0.004	<0.004		<0.004	<0.004	<0.004	<0.004	<0.004	0.01	<0.004		
	Diuron	<0.20	0.33		0.34	<0.20	0.20	<0.20	<0.20	<0.20			
2013	<i>Hyalella azteca</i>			95							96.25		
	Date		3/11	3/12	4/9/2013	5/14/2013	6/11/2013	7/9/2013	8/13/2013	9/9/2013			
	<i>Ceriodaphnia dubia</i>				100	100	100	100	100	100			
	Chlorpyrifos				<0.0026	<0.0026	<0.0026	<0.0026	<0.0026	<0.0026			
	DDE(p,p')				<0.004	<0.004	<0.004	<0.004	<0.004	<0.004			
2014	Diuron				0.43	<0.20	<0.20	<0.20	<0.20	<0.20			
	<i>Hyalella azteca</i>			91.25							93.33		
	Date		3/3	3/10	4/8/2014	5/13/2014	6/10/2014	7/8/2014	8/12/2014	9/8	9/9		12/4/2014
	<i>Ceriodaphnia dubia</i>			95		100	100	95	95		95		100
	Chlorpyrifos			0.034		<0.0026	<0.0026	<0.0026	<0.0026	<0.0026	<0.0026		<0.0026
2015	DDE(p,p')			<0.004		<0.004	<0.004	<0.004	<0.004	<0.004	<0.004		<0.004
	Diuron			<0.20		<0.20	<0.20	<0.20	<0.20	<0.20	<0.20		<0.20
	<i>Hyalella azteca</i>				81.25						92.5		
	Date	1/13/2015	2/10/2015	3/9	3/10	4/14/2015	5/12/2015	6/9/2015					
	<i>Ceriodaphnia dubia</i>	95	90		100	100	100	95					
2017	Chlorpyrifos	0.022	<0.0026		<0.0026	<0.0026	<0.0026	<0.0026					
	DDE(p,p')	<0.004	<0.004		<0.004	<0.004	<0.004	<0.004					
	Diuron	<0.20	<0.20		<0.20	<0.20	<0.20	<0.20					
	<i>Hyalella azteca</i>			91.25									
	Date			3/14/2017									
	<i>Ceriodaphnia dubia</i>			95									
	Chlorpyrifos			<0.0026									
	DDE(p,p')			<0.004									
	Diuron			<0.20									

SALT SLOUGH AT LANDER AVE

Description of Subwatershed

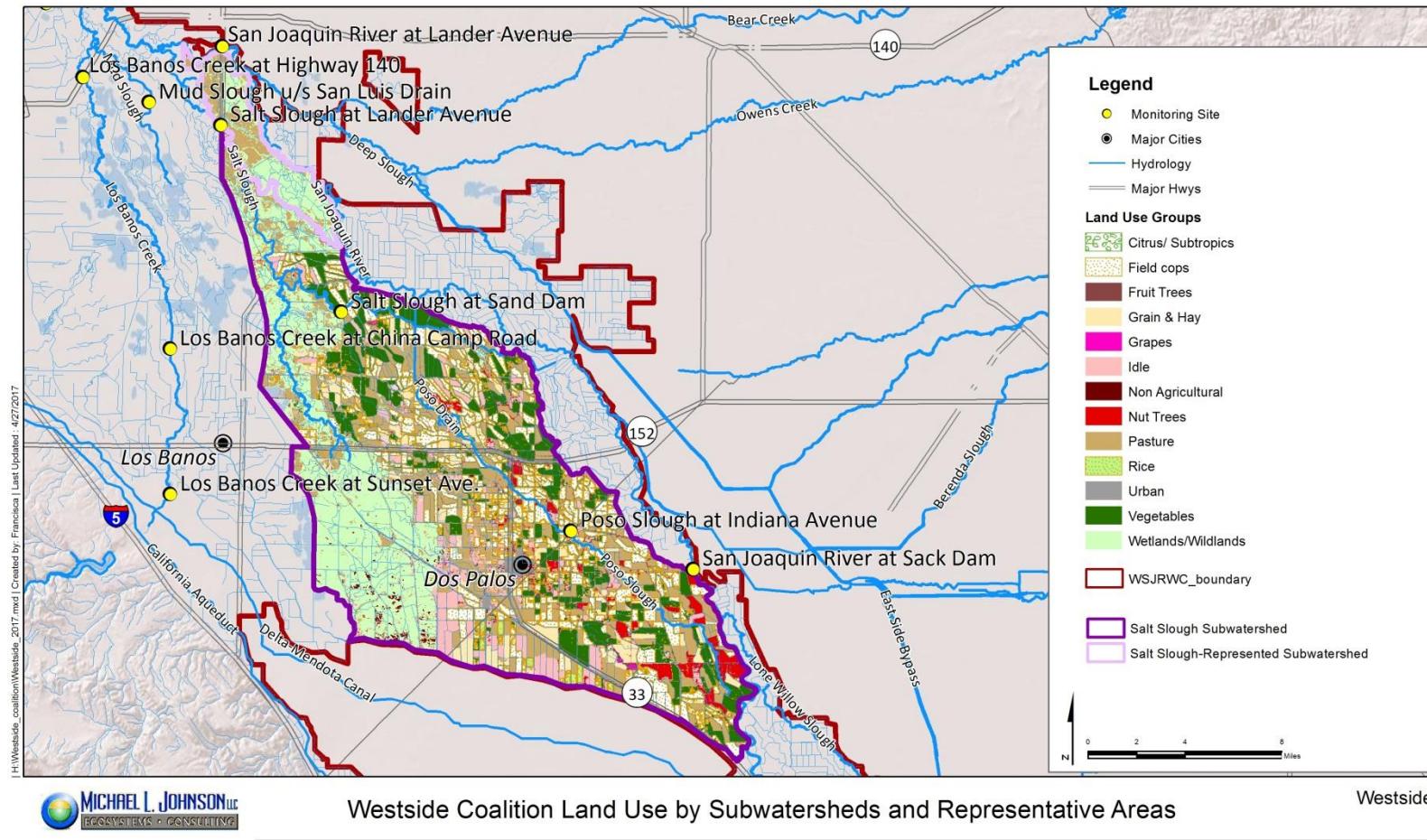
Salt Slough at Lander Avenue (SSALA) measures agricultural, stormwater, and wetland runoff from the Dos Palos and Los Banos Subareas, and has been monitored (and 303(d) listed) for a variety of constituents since 2004. The site is located in Merced County. Discharge at this site is reported by CDEC. The SWAMP data are available at:

<http://www.waterboards.ca.gov/centralvalley/programs/agunit/swamp/index.html>.

Table 32. Salt Slough at Lander Ave management plan constituents.

10 YEAR DEADLINE	SUBWATERSHED NAME	CONSTITUENT	LAST EXCEEDANCE
2016	Salt Slough at Lander Ave	<i>C. dubia</i>	2010
2016	Salt Slough at Lander Ave	Chlorpyrifos	2014
2017	Salt Slough at Lander Ave	<i>S. capricornutum</i>	2012
2018	Salt Slough at Lander Ave	Diuron	2012
2022	Salt Slough at Lander Ave	Malathion	2015

Figure 15. Salt Slough at Lander Ave subwatershed land use map



Monitoring History Results

The Coalition initiated monitoring at Salt Slough at Lander Ave in 2004 and has continued to the present.

Table 33. Salt Slough at Lander Ave monitoring history for management plan constituents.

YEAR	MANAGEMENT PLAN CONSTITUENTS	JAN	FEB		MAR	APR	MAY	JUN		JUL	AUG	SEP	OCT	NOV	DEC		
2004	Date									7/13/04	8/10/04	9/14/04	10/12/04	11/9/04	12/14	12/28	
	<i>Ceriodaphnia dubia</i>									95	100	100	45	100		95	
	Chlorpyrifos									ND	ND	ND	ND	ND		ND	
	Malathion									ND	ND	ND	ND	ND		ND	
	<i>Selenastrum capricornutum</i>									1078750	797750	3018000	3195750	2190000	2587000	945000	
2005	Date	1/11/2005	2/8/05	2/16/05	3/8	4/12/05	5/10/05	6/14/2005		7/12/05	8/9/05	9/14/05	10/12/05	11/8/05	12/13/2005		
	<i>Ceriodaphnia dubia</i>	100	95	95	0	100	100		90	90	100	100	100	100		100	
	Chlorpyrifos	ND	ND	ND	0.30	ND	0.06	0.044		0.08	0.024	0.053	ND	ND		ND	
	Malathion	ND	ND	ND	0.085J	ND	ND		ND	ND	ND	ND	ND	ND		ND	
	<i>Selenastrum capricornutum</i>	2420000	3100000	1980000	2790000	2770000	1912000	2610000		2420000	2400000	2120000	2250000	3110000	1190000		
2006	Date	1/3/2006	2/14	2/23	2/28	3/14/2006	4/11/06	5/9/06	6/13/2006		7/11/06	8/8/06	9/12/06	10/10/06	11/14/06	12/12/2006	
	<i>Ceriodaphnia dubia</i>	100	100		10	95	90	100		100	100	100	100	95		100	
	Chlorpyrifos	ND	ND	ND	ND	ND	ND		ND	ND	0.039	0.047	ND	<0.0026		<0.0026	
	Diuron									ND	ND	ND	ND	<0.2		<0.2	
	Malathion	ND	ND	ND	ND	ND	ND		ND	ND	ND	ND	ND	<0.05		<0.05	
2007	<i>Selenastrum capricornutum</i>	2790000	845000	347000	617000	3600000	2650000	1918000	1780000		2252500	1333500	1873075	1774000	2710750	2094500	
	Date	1/9/2007	2/12/2007		3/13/2007	4/10/07	5/8/07	6/12/2007		7/10/07	8/14/07	9/11/07	10/9/07	11/13/07	12/11/2007		
	<i>Ceriodaphnia dubia</i>	70	100		0	100	100		95	95	100	100	95	60		100	
	Chlorpyrifos	<0.0026	<0.0026		<0.0026	<0.0026	<0.0026		<0.0026	<0.0026	<0.0026	0.044	<0.0026	<0.0026		<0.0026	
	Diuron	0.21	2.8		2.8	8.5	2.1		0.6	0.43	0.23	<0.2	<0.2	<0.2		<0.2	
2008	Malathion	<0.05	<0.05		<0.05	<0.05	<0.05		<0.05	<0.05	<0.05	<0.05	<0.05	<0.05		<0.05	
	<i>Selenastrum capricornutum</i>	1600000	1162500		683750	795500	1122750	934175		1670000	3970000	4830000	4750000	4730000	3730000		
	Date	1/5/2008	2/12/2008		3/18/2008	4/8/08	5/13/08	6/10/2008		7/8/2008	8/12/08	9/10/08	10/23/08	11/12/08	12/9/2008		
	<i>Ceriodaphnia dubia</i>	100	100			85	100	100		100	45	100	100	100		65	
	Chlorpyrifos	<0.0026	<0.0026		<0.0026	<0.0026	0.0042	<0.0026		<0.0026	0.11	0.54	0.02	<0.003	<0.003		<0.0026
2009	Diuron	0.41	0.52		3.8	1.4	2.4		0.73	0.33	<0.2	<0.20	<0.20	<0.20		<0.20	
	Malathion	<0.05	<0.05		<0.05	<0.05	<0.05		<0.05	<0.05	<0.05	<0.05	<0.05	<0.05		<0.05	
	<i>Selenastrum capricornutum</i>	4830000	2610000		4710000	2110000	3780000	3165000		3993000	3567000	4102000	3863000	4250000	3695000		
	Date	1/13/2009	2/12/2009		3/10/2009	4/14/09	5/12/09	6/9	6/15	6/25	7/14/09	8/11/09	9/15/09	10/13/09	11/10/09	12/8/2009	
	<i>Ceriodaphnia dubia</i>	100	100			100	100	100		95	85	100	95	75	65	100	
2010	Chlorpyrifos	<0.0026	<0.0026		<0.0026	<0.0026	0.0043	0.019	<0.0026		0.058	0.089	0.045	<0.0026	<0.0026		<0.0026
	Diuron	<0.20	1.2		1.4	1.8	0.89	0.28		<0.20	<0.20	<0.20	<0.20	<0.20		<0.20	
	Malathion	<0.050	<0.050		<0.050	<0.050	<0.050	<0.050		<0.050	<0.050	<0.050	<0.050	<0.050		<0.050	
	<i>Selenastrum capricornutum</i>	3310000	3830000		2913000	2755000	2643000	3063000		4780000	3803000	4193000	4975000	4290000	3720000		
	Date	1/12/10	1/21/10	2/9/2010		3/9/2010	4/13/10	5/11/10	6/8/2010		7/14/10	8/10/10	9/16/10	10/12/10	11/9/10	12/14/10	
2010	<i>Ceriodaphnia dubia</i>	65	100	100		95	100	100		95	95	100	100	100		95	
	Chlorpyrifos	<0.0026	<0.0026	<0.0026		<0.0026	<0.0026	<0.0026		<0.0026	<0.0026	<0.0026	<0.0026	<0.0026		<0.0026	
	Diuron	<0.20	0.93	1.7		0.70	0.60	0.68		0.31	0.24	<0.20	<0.20	<0.20		<0.20	
	Malathion	<0.050	<0.050	<0.050		0.056	<0.050	<0.050		<0.050	<0.050	<0.050	<0.050	<0.050		<0.050	
	<i>Selenastrum capricornutum</i>	3713000	3920000	4838000		3572000	4445000	3148000	3555000		3670000	2038000	4027000	5133000	4793000	4818000	

YEAR	MANAGEMENT PLAN CONSTITUENTS	JAN	FEB		MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
2011	Date	1/11/2011	2/8/2011	2/23/2011	3/8/2011	4/12/11	5/10/11	6/14/2011	7/12/11	8/9/11	9/13/11	10/11/11	11/8/2011	12/13/2011
	<i>Ceriodaphnia dubia</i>	100		100	80	100	100	95	100	85	100	85	100	100
	Chlorpyrifos	<0.0026	<0.0026	<0.0026	<0.0026	<0.0026	<0.0026	<0.0026	<0.0026	<0.0026	<0.0026	<0.0026	<0.0026	<0.0026
	Diuron	0.36	0.67	3.4	3.5	0.29	0.58	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20
	Malathion	<0.050	<0.050	<0.050	<0.050	0.076	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050
	<i>Selenastrum capricornutum</i>	4011000	4394000	1680000	1313000	5173000	5665000	4562000	4833000	4085000	4653000	4633000	4800000	4130000
2012	Date	1/10/2012	2/14/2012	3/13/2012	4/10/12	5/8/12		6/12/2012	7/10/12	8/14/12	9/18/12	10/16/12	11/13/12	12/11/2012
	<i>Ceriodaphnia dubia</i>	85	100	100	100	100		95	100	95			100	90
	Chlorpyrifos	<0.0026	<0.0026	<0.0026	<0.0026	<0.0026		<0.0026	<0.0026	<0.0026	<0.0026	<0.0026	<0.0026	<0.0026
	Diuron	<0.20	6.9	0.44	0.20	1.1		0.21	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20
	Malathion	<0.050	<0.050	0.25	<0.050	<0.050		<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050
	<i>Selenastrum capricornutum</i>	3658000	796000											
2013	Date	1/8/2013	2/12/2013	3/12/2013	4/9/13	5/14/13		6/11/2013	7/9/2013	8/13/13	9/10/13	10/8/13	11/12/13	12/10/2013
	<i>Ceriodaphnia dubia</i>	95		100	100	95		100	100	90	100	95	100	100
	Chlorpyrifos	<0.0026	<0.0026	<0.0026	<0.0026	<0.0026		<0.0026	<0.0026	<0.0026	<0.0026	<0.0026	<0.0026	<0.0026
	Diuron	<0.20	<0.20	1.3	1.3	0.37		0.40	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20
	Malathion	<0.050	<0.050	0.11	<0.050	<0.030		<0.030	<0.030	<0.030	<0.030	<0.030	<0.030	<0.030
	<i>Selenastrum capricornutum</i>	4733000												
2014	Date	1/14/2014	2/10/2014	3/3/2014	4/8/14	5/13/14		6/10/2014	7/8/2014	8/12/14	9/9/2014	10/14/14	11/12/14	12/4/2014
	<i>Ceriodaphnia dubia</i>	100	100	100	100	100		100	100	100	100	100	100	100
	Chlorpyrifos	<0.0026	<0.0026	0.057	0.034	<0.0026		<0.0026	<0.0026	<0.0026	<0.0026	<0.0026	<0.0026	<0.0026
	Diuron	<0.20	0.83	1.6	<0.20	0.96		<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20
	Malathion	<0.030	<0.030	<0.030	<0.030	<0.030		<0.030	<0.030	<0.030	<0.030	<0.030	<0.030	<0.030
	<i>Selenastrum capricornutum</i>		5920000	5875000	6870000	5465000		5803000	4828000		5628000	6653000	5565000	6870000
2015	Date	1/13/2015	2/10/2015	3/10/2015	4/14/15	5/12/15		6/9/2015	7/14/15	8/11/15	9/15/15	10/20/15		
	<i>Ceriodaphnia dubia</i>	100	100	100	100	95		100	95	95	100	100	90	
	Chlorpyrifos	<0.0026	<0.0026	<0.0026	<0.0026	<0.0026		<0.0026	<0.0026	<0.0026	<0.0026	<0.0026	<0.0026	
	Diuron	<0.20	0.27	0.28	0.45	0.28		0.39	<0.20	<0.20	<0.20	<0.20	<0.20	
	Malathion	<0.030	<0.030	0.033	<0.030	<0.030		<0.030	<0.030	<0.030	<0.030	<0.030	<0.030	
	<i>Selenastrum capricornutum</i>	5763000	5458000	3123000	5490000	3513000		4868000	4345000	5390000	5273000			
2016	Date	1/7/2016	2/9/2016	3/8/2016	4/12/16	5/10/16		6/14/2016	7/12/16	8/9/16	9/13/16	10/11/16	11/1/16	
	<i>Ceriodaphnia dubia</i>	100	100	90	100	100		100	100	100	100	100	100	
	Chlorpyrifos	<0.0026	<0.0026	<0.0026	<0.0026	<0.0026		<0.0026	<0.0026	<0.0026	<0.0026	<0.0026	<0.0026	<0.0026
	Diuron	<0.20	<0.20	0.54	0.49	<0.20		<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20
	Malathion	<0.030	<0.030	<0.030	<0.030	<0.030		<0.030	<0.030	<0.030	<0.030	<0.030	<0.030	<0.030
	<i>Selenastrum capricornutum</i>	5690000			6093000	6200000		5275000	6423000	5473000				6043000
2017	Date	1/10/2017	2/14/2017	3/14/2017	4/11/17	5/9/17		6/13/2017						
	<i>Ceriodaphnia dubia</i>	100	100	95	100	100		100						
	Chlorpyrifos	0.0058	<0.0026	<0.0026	<0.0026	<0.0026								
	Diuron	<0.20	0.60	<0.20	<0.20	<0.20								
	Malathion	<0.030	<0.030	<0.030	<0.030	<0.030								
	<i>Selenastrum capricornutum</i>	6323000			6188000	5758000	5383000	4883000						

SALT SLOUGH AT SAND DAM

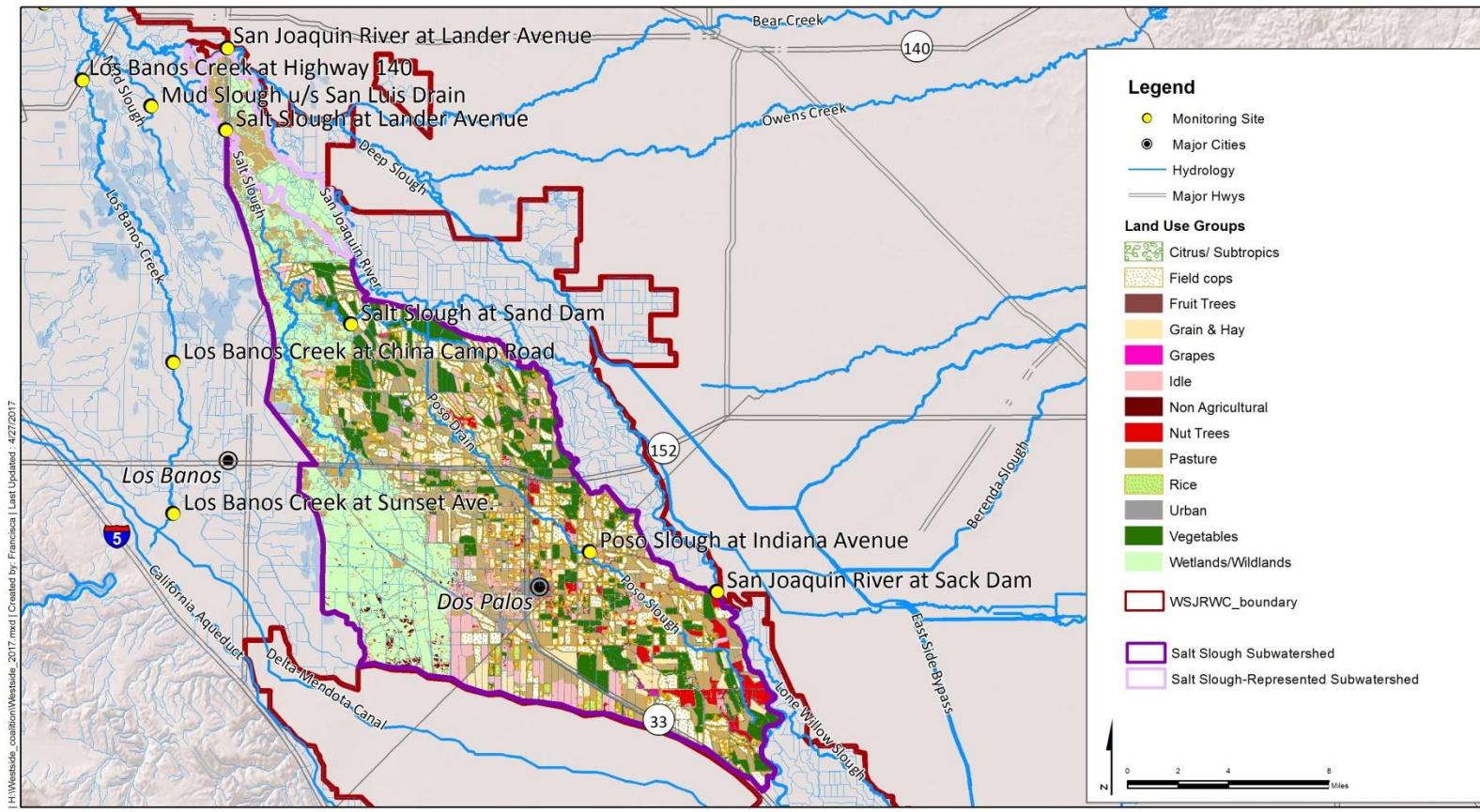
Description of Subwatershed

The Salt Slough at Sand Dam (SSASD) watershed is located in Merced and Fresno counties. The subarea includes 91,500 acres of irrigated area. The primary irrigated acreage with the subwatershed are alfalfa, cotton, and tomatoes. This site is upstream of the Lander Avenue site and measures agricultural and stormwater drainage originating in portions of the Dos Palos Subarea. Pesticides and aquatic toxicity have been measured at this site, which has been monitored for a variety of constituents since 2004. It is on the 303(d) list for a variety of constituents. Discharge at this site is measured by a weir.

Table 34. Salt Slough at Sand Dam management plan constituents.

10 YEAR DEADLINE	SUBWATERSHED NAME	CONSTITUENT	LAST EXCEEDANCE
2015	Salt Slough at Sand Dam	Chlorpyrifos	2016
2017	Salt Slough at Sand Dam	<i>C. dubia</i>	2013
2017	Salt Slough at Sand Dam	<i>S. capricornutum</i>	2015
2018	Salt Slough at Sand Dam	Diuron	2015
2019	Salt Slough at Sand Dam	Malathion	2016

Figure 16. Salt Slough at Sand Dam subwatershed land use map



Westside Coalition Land Use by Subwatersheds and Representative Areas

Westside

Coordinate System: NAD 1983 StatePlane California III FIPS 0403 Feet
Projection: property=Lambert Conformal Conic
Units: Foot US

Service Layer Credits: Shaded Relief: Copyright © 2014 Esri
Highways: Copyright © 2000 Esri
Roads: Highways released - ESR
Land Use: Cropland Data Layer, 2016, 30m
http://www.esri.com/research_and_science/Cropland/SAR51a.php

Monitoring History Results

The Coalition initiated monitoring at Salt Slough at Sand Dam in 2004 and has continued to the present.

Table 35. Salt Slough at Sand Dam monitoring history for management plan constituents.

YEAR	MANAGEMENT PLAN CONSTITUENTS	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
2004	Date							7/13/2004	8/10/2004				12/28/2004
	<i>Ceriodaphnia dubia</i>							100	100				100
	Chlorpyrifos							0.01J	0.36				ND
	Malathion							ND	ND				ND
2005	<i>Selenastrum capricornutum</i>							1412750	995750				1240000
	Date	2/16/2005	3/8	3/11	4/12/2005	5/10/2005	6/14/2005	7/12/2005	8/9/2005				
	<i>Ceriodaphnia dubia</i>	90	0	0	95	90	100	90	100				
	Chlorpyrifos	ND	1.0		0.015J	0.032	0.066	0.09	0.044				
	Malathion	ND	0.69		ND	ND	ND	ND	ND				
2006	<i>Selenastrum capricornutum</i>	1510000	2600000		2660000	1610000	1870000	2430000	1851000				
	Date	1/3	1/9	2/28/2006	3/14/2006	4/11/2006	5/9/2006	6/13/2006	7/11/2006	8/8/2006			
	<i>Ceriodaphnia dubia</i>	100		95	90	95	100	100	100	0			
	Chlorpyrifos	ND		ND	0.019J	ND	ND	ND	ND	0.23			
	Diuron									ND	ND		
2007	Malathion	ND		ND	ND	ND	ND	ND	ND	ND			
	<i>Selenastrum capricornutum</i>	1380000	2240000	608000	3600000	2150000	1956000	1950000	2872500	1161000			
	Date		2/12/2007	3/13/2007	4/10/2007	5/8/2007	6/12/2007	7/10/2007	8/14/2007				
	<i>Ceriodaphnia dubia</i>		100	0	95	100	100	95	100				
	Chlorpyrifos		<0.0026	<0.0026	<0.0026	<0.0026	<0.0026	<0.0026	<0.0026	0.049			
2008	Diuron		11	3.8	3.8	1.4	0.77	0.33	<0.2				
	Malathion		<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050				
	<i>Selenastrum capricornutum</i>		393250	942500	887000	1631250	1592750	2210000	3060000				
	Date	1/7/2008		3/18/2008	4/8/2008	5/13/2008	6/10/2008	7/8/2008	8/12/2008				
	<i>Ceriodaphnia dubia</i>	100		100	95	100	100	0	100				
2009	Chlorpyrifos			<0.0026	0.0051	<0.0026	<0.0026	0.48	0.32				
	Diuron			2.4	1.5	4	0.51	0.38	0.24				
	Malathion			<0.050	0.072	<0.050	<0.05	<0.05	<0.05				
	<i>Selenastrum capricornutum</i>	5180000		5180000	1600000	2880000	1027000	4085000	3942000				
	Date		2/12/2009	3/10/2009	4/14/2009	5/12/2009	6/9/2009	7/14/2009	8/11/2009				12/9/2009
2010	<i>Ceriodaphnia dubia</i>	100	100	100	100	100	100	100	100				95
	Chlorpyrifos	0.012	<0.0026	0.015	<0.0026	<0.0026	0.048	0.20					<0.0026
	Diuron	1.6	4.6	2.2	1.4	0.28	<0.20	<0.20					<0.20
	Malathion	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050				<0.050
	<i>Selenastrum capricornutum</i>	3117000	1725000	2595000	2345000	3760000	2850000	2875000					3173000
2010	Date	1/21/2010		3/9/2010	4/13/2010	5/11/2010	6/8/2010	7/14/2010	8/10/2010				12/21/2010
	<i>Ceriodaphnia dubia</i>	95		100	100	100	100	95	75				85
	Chlorpyrifos	<0.0026		<0.0026	<0.0026	<0.0026	<0.0026	0.095	0.038				<0.0026
	Diuron	4.6		2.2	0.78	1.8	0.64	0.26	<0.20				2.2
	Malathion	<0.050		0.20	<0.050	<0.050	<0.050	<0.050	<0.050				<0.050
	<i>Selenastrum capricornutum</i>	1855000		3573000	3880000	3275000	3218000	3870000	2338000				3548000

YEAR	MANAGEMENT PLAN CONSTITUENTS	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
2011	Date	2/23/2011	3/8/2011	4/12/2011	5/10/2011	6/14/2011	7/12/2011	8/9/2011	9/13/2011	10/11/2011	11/8/2011	12/13/2011	
	<i>Ceriodaphnia dubia</i>	100	90	100	100	95	100	90	85	95	100	100	
	Chlorpyrifos	<0.0026	<0.0026	<0.0026	<0.0026	<0.0026	<0.0026	<0.0026	<0.0026	0.087	<0.0026	<0.0026	<0.0026
	Diuron	3.3	5.6	0.23	0.61	0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	2.0
	Malathion	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050
	<i>Selenastrum capricornutum</i>	1588000	1140000	5313000	6020000	4091000	4843000	4365000	4933000	4340000	4325000	2705000	
2012	Date	1/10/2012	2/14/2012	3/13/2012	4/10/2012	5/8/2012	6/12/2012	7/10/2012	8/14/2012				
	<i>Ceriodaphnia dubia</i>	95	100	100	100	100	95	100	95				
	Chlorpyrifos	<0.0026	<0.0026	0.018	<0.0026	<0.0026	<0.0026	<0.0026	<0.0026				
	Diuron	1.4	5.5	0.48	0.35	1.0	0.31	<0.20	<0.20				
	Malathion	<0.050	<0.050	0.41	<0.050	<0.050	<0.050	<0.050	<0.050				
2013	<i>Selenastrum capricornutum</i>	2888000	915500										
	Date	1/8/2013		3/12/2013	4/9/2013	5/14/2013	6/11/2013	7/9/2013	8/13/2013				
	<i>Ceriodaphnia dubia</i>	100		0	100	100	95	100	100				
	Chlorpyrifos	<0.0026		<0.0026	0.072	<0.0026	<0.0026	<0.0026	<0.0026				
	Diuron	0.25		1.3	0.42	0.27	0.55	<0.20	<0.20				
2014	Malathion	<0.050		2.7	<0.050	<0.030	<0.030	<0.030	<0.030				
	<i>Selenastrum capricornutum</i>	4483000											
	Date	2/10/2014	3/3/2014	4/8/2014	5/13/2014	6/10/2014	7/8/2014	8/12/2014	9/9/2014	10/14/2014	11/12/2014	12/4/2014	
	<i>Ceriodaphnia dubia</i>	100	100	100	100	100	100		100	100	100	100	
	Chlorpyrifos	<0.0026	<0.0026	0.052	<0.0026	<0.0026	<0.0026	0.038	<0.0026	<0.0026	<0.0026	<0.0026	
2015	Diuron	5.6	0.25	0.31	0.76	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	1.9	
	Malathion	<0.030	<0.030	<0.030	<0.030	<0.030	<0.030	<0.030	<0.030	<0.030	<0.030	<0.030	
	<i>Selenastrum capricornutum</i>	1080000	5185000	6083000	5450000	5778000	5150000		5573000	3750000	3450000	6033000	
	Date	1/13/2015	2/10/2015	3/10/2015	4/14/2015	5/12/2015	6/9/2015	7/14/2015	8/11/2015	9/15/2015			
	<i>Ceriodaphnia dubia</i>	70	95	95	100	100	100	100	100				
2016	Chlorpyrifos	<0.0026	<0.0026	<0.0026	<0.0026	<0.0026	<0.0026	<0.0026	<0.0026				
	Diuron	<0.20	8.3	0.21	<0.20	0.64	0.53	<0.20	<0.20	0.49			
	Malathion	<0.030	<0.030	0.033	<0.030	<0.030	<0.030	<0.030	<0.030				
	<i>Selenastrum capricornutum</i>	6593000	2105000										5488000
	Date	1/7/2016		3/8/2016	4/12/2016	5/10/2016	6/14/2016	7/12/2016	8/9/2016				11/1/2016
2017	<i>Ceriodaphnia dubia</i>	100		100	100	100	100	100	100				100
	Chlorpyrifos	<0.0026		<0.0026	<0.0026	<0.0026	<0.0026	<0.0026	0.058				<0.0026
	Diuron	<0.20		0.28	<0.20	<0.20	<0.20	<0.20	<0.20				<0.20
	Malathion	<0.030		0.12	<0.030	<0.030	<0.030	<0.030	<0.030				<0.030
	<i>Selenastrum capricornutum</i>	5760000		3553000									
2017	Date		3/14/2017	4/11/2017	5/9/2017	6/13/2017							
	<i>Ceriodaphnia dubia</i>		100	100	100	100							
	Chlorpyrifos		<0.0026	<0.0026	<0.0026								
	Diuron		<0.20	<0.20	<0.20								
	Malathion		<0.030	<0.030	<0.030								
2017	<i>Selenastrum capricornutum</i>			5838000	5790000	6165000	5515000						

SAN JOAQUIN RIVER AT LANDER AVE

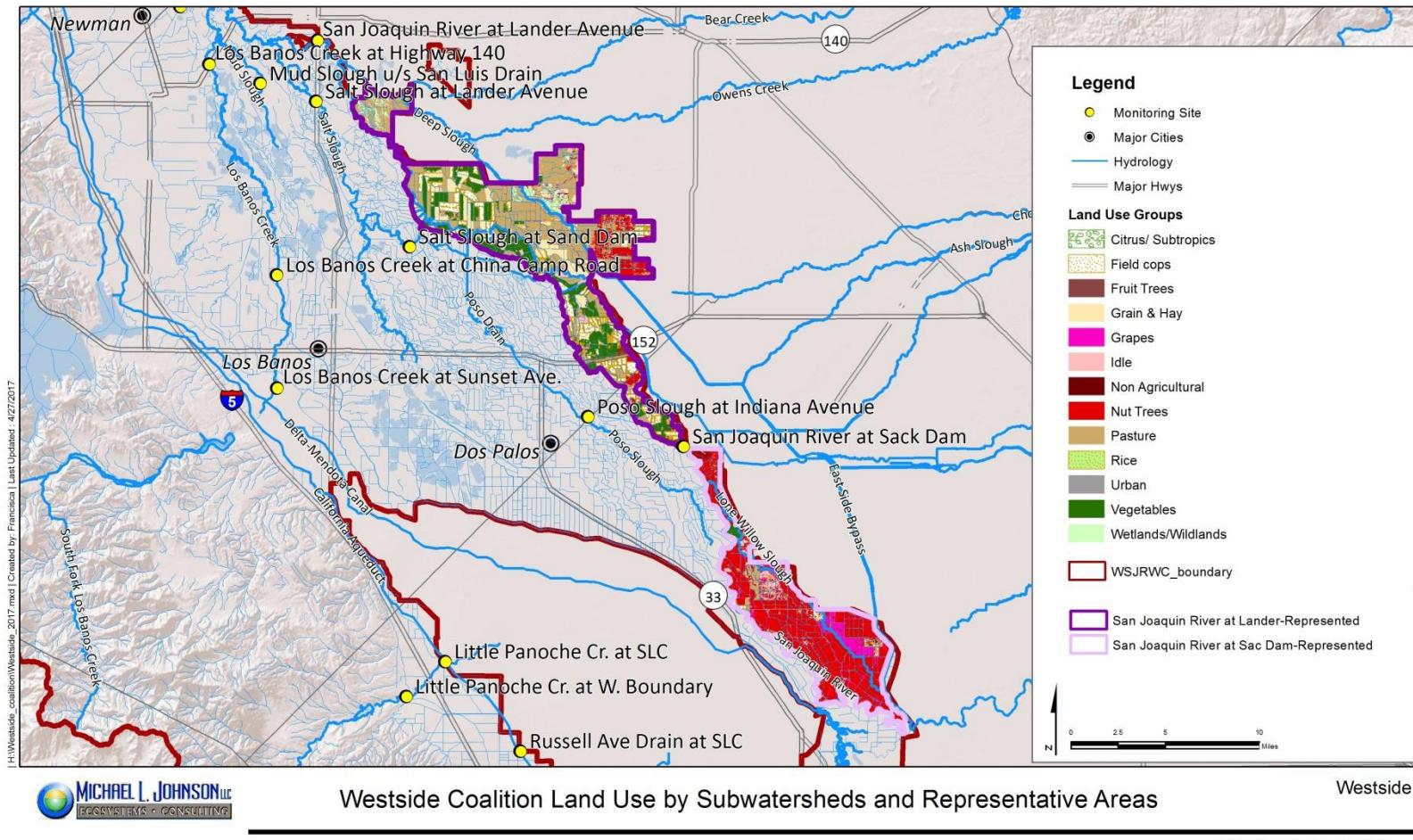
Description of Subwatershed

The San Joaquin River at Lander Avenue (SJRLA) is both a receiving water-body for agricultural and stormwater drainage and a source water for districts that pump from the San Joaquin River. It also receives drainage flows from irrigated wetlands in the fall and winter months. The site itself is located in Merced County and also receives water from Fresno and Madera counties. The subarea includes 41,400 acres of irrigated area. The primary land uses of the irrigated acres with the subwatershed are alfalfa, cotton, and tomatoes. It has been monitored for a variety of constituents since 2004, and pesticides, sediment toxicity, and aquatic toxicity have been found at this site. It is on the 303(d) list for a variety of constituents. Discharge at this site is obtained from a nearby CDEC station.

Table 36. San Joaquin River at Lander Ave management plan constituents.

10 YEAR DEADLINE	SUBWATERSHED NAME	CONSTITUENT	LAST EXCEEDANCE
2018	San Joaquin River at Lander Ave	Diuron	2014
2018	San Joaquin River at Lander Ave	<i>S. capricornutum</i>	2014
2023	San Joaquin River at Lander Ave	Malathion	2012

Figure 17. San Joaquin River at Lander Ave subwatershed land use map



Monitoring History Results

The Coalition initiated monitoring at San Joaquin River at Lander Ave in 2004 and has continued to the present.

Table 37. San Joaquin River at Lander Ave monitoring history for management plan constituents.

MONITORING YEAR	MANAGEMENT PLAN CONSTITUENTS	JAN	FEB		MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	
2004	Date								7/13/2004	8/10/2004	9/14/2004	10/12/2004	11/9/2004	12/14/2004	12/28/04
	Malathion								ND	ND	ND	ND	ND		ND
	<i>Selenastrum capricornutum</i>								1183750	627000	1105000	3152250	1940000	2507000	2300000
2005	Date	1/11/2005	2/8/2005	2/16/2005	3/8/2005	4/12/2005	5/10/2005	6/14/2005	7/12/2005	8/9/2005	9/14/2005	10/12/2005	11/8/2005		12/13/2005
	Malathion	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND		ND
	<i>Selenastrum capricornutum</i>	1570000	2270000	2660000	2920000	2530000	1860000	1540000	2050000	2570000	2590000	2440000	2430000		3700000
2006	Date	1/3/2006	2/14/2006	2/28/2006	3/14/2006	4/11/2006	5/9/2006	6/13/2006	7/11/2006	8/8/2006	9/12/2006	10/10/2006	11/14/2006		12/12/2006
	Diuron								ND	ND	ND	ND	<0.2		<0.2
	Malathion	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	<0.05		<0.05
2007	<i>Selenastrum capricornutum</i>	2740000	2570000	2410000	3360000	2030000	1949000	1370000	1542500	647000	1618025	1694000	1454000		1608000
	Date	1/9/2007	2/12/2007	3/13/2007	4/10/2007	5/8/2007	6/12/2007	7/10/2007	8/14/2007	9/11/2007	10/9/2007	11/13/2007			12/11/2007
	Diuron	<0.2	6.1	3.2	0.83	1	0.58	0.27	<0.2	<0.2	<0.2	<0.2	<0.2		<0.2
2008	Malathion	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05		<0.05
	<i>Selenastrum capricornutum</i>	1734000	417000	724750	2169250	1778500	934775	1370000	4000000	3340000	1570000	5270000			2890000
	Date	1/5/2008	2/12/2008	3/18/2008	4/8/2008	5/13/2008	6/10/2008	7/8/2008	8/12/2008	9/10/2008	10/23/2008	11/12/2008			12/9/2008
2009	Diuron	<0.2	<0.2	2.3	0.34	1.3	0.61	0.24	0.39	<0.20	<0.20	<0.20	<0.20		<0.20
	Malathion	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05		<0.05
	<i>Selenastrum capricornutum</i>	3660000	3460000	3860000	2160000	2650000	1938000	3379000	2409000	2510000	3068000	3495000			2345000
2010	Date	1/13/2009	2/12/2009	3/10/2009	4/14/2009	5/12/2009	6/15/2009	7/14/2009	8/11/2009	9/15/2009	10/13/2009	11/10/2009			12/8/2009
	Diuron	<0.20	<0.20	<0.20	0.72	1.1	0.34	0.20	<0.20	<0.20	<0.20	<0.20			<0.20
	Malathion	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050			<0.050
2011	<i>Selenastrum capricornutum</i>	2935000	3955000	2405000	2303000	1610000	4058000	3440000	2478000	2388000	4710000	4055000			3938000
	Date	1/12	1/21	2/9/2010	3/9/2010	4/13/2010	5/11/2010	6/8/2010	7/14/2010	8/10/2010	9/16/2010	10/12/2010	11/9/2010		12/14/2010
	Diuron	<0.20	0.65	0.27	0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20		<0.20	
2012	Malathion	<0.050	<0.050	<0.050	0.051	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050			<0.050
	<i>Selenastrum capricornutum</i>	1010000	3123000	4615000	3786000	4245000	3730000	2233000	2033000	982500	2663000	4593000	4608000		4915000
	Date	1/11/2011	2/8/2011	2/23/2011	3/8/2011	4/12/2011	5/10/2011	6/14/2011	7/12/2011	8/9/2011	9/13/2011				
2013	Diuron	<0.20	<0.20	0.25	0.80	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20				
	Malathion	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050				<0.050
	<i>Selenastrum capricornutum</i>	4112000	5003000	3200000	2168000	4850000	5063000	4075000	3958000	3990000	4355000				
2014	Date				3/13/2012	4/10/2012	5/8/2012	6/12/2012	7/10/2012	8/14/2012	9/18/2012	10/16/2012	11/13/2012		12/11/2012
	Diuron				1.4	<0.20	0.35	0.85	0.42	<0.20	<0.20	<0.20	<0.20		<0.20
	Malathion				0.25	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050		<0.050
2015	Date	1/8/2013	2/12/2013	3/12/2013	4/9/2013	5/14/2013	6/11/2013	7/9/2013	8/13/2013	9/10/2013	10/8/2013	11/12/2013			12/10/2013
	Diuron	<0.20	0.21	4.2	0.28	0.77	0.24	<0.20	<0.20	<0.20	<0.20	<0.20		<0.20	
	Malathion	<0.050	<0.050	<0.050	<0.050	<0.050	<0.030	<0.030	<0.030	<0.030	<0.030	<0.030		<0.030	
2014	<i>Selenastrum capricornutum</i>	4265000													
	Date	1/14/2014	2/10/2014	3/3/2014	4/8/2014	5/13/2014	6/10/2014	7/8/2014	8/12/2014	9/9/2014	10/14/2014	11/12/2014			12/4/2014
	Diuron	<0.20	1.2	5.4	1.2	0.40	0.21	<0.20	<0.20	<0.20	<0.20	<0.20		<0.20	
2015	Malathion	<0.030	<0.030	<0.030	<0.030	<0.030	<0.030	<0.030	<0.030	<0.030	<0.030	<0.030		<0.030	
	<i>Selenastrum capricornutum</i>	4845000	1463000	4505000	5348000	5428000	5108000			5425000	4940000	3570000			6363000
	Date	1/13/2015	2/10/2015	3/10/2015	4/14/2015	5/12/2015	6/9/2015	7/14/2015	8/11/2015	9/15/2015	10/20/2015				
2015	Diuron	<0.20	<0.20	<0.20	0.24	0.76	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20			
	Malathion	<0.030	<0.030	<0.030	<0.030	<0.030	<0.030	<0.030	<0.030	<0.030	<0.030	<0.030		<0.030	
	<i>Selenastrum capricornutum</i>	4853000	5150000	4138000	4320000	3455000	4383000	4735000	3823000	3673000					

MONITORING YEAR	MANAGEMENT PLAN CONSTITUENTS	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
2016	Date	1/7/2016	2/9/2016	3/8/2016	4/12/2016	5/10/2016	6/14/2016	7/12/2016	8/9/2016	9/13/2016	10/11/2016	11/1/2016	
	Diuron	<0.20	<0.20	1.1	0.58	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	
	Malathion	<0.030	<0.030	<0.030	<0.030	<0.030	<0.030	<0.030	<0.030	<0.030	<0.030	<0.030	
	<i>Selenastrum capricornutum</i>	3690000		3805000	5998000	4948000	5610000	5400000	4393000			5083000	
2017	Date	1/10/2017	2/14/2017	3/14/2017	4/11/2017	5/9/2017	6/13/2017						
	Diuron	<0.20	<0.20	<0.20	<0.20	<0.20							
	Malathion	<0.030	<0.030	<0.030	<0.030	<0.030							
	<i>Selenastrum capricornutum</i>	5570000		4810000	5490000	4860000	3920000						

WESTLEY WASTEWAY NEAR COX ROAD

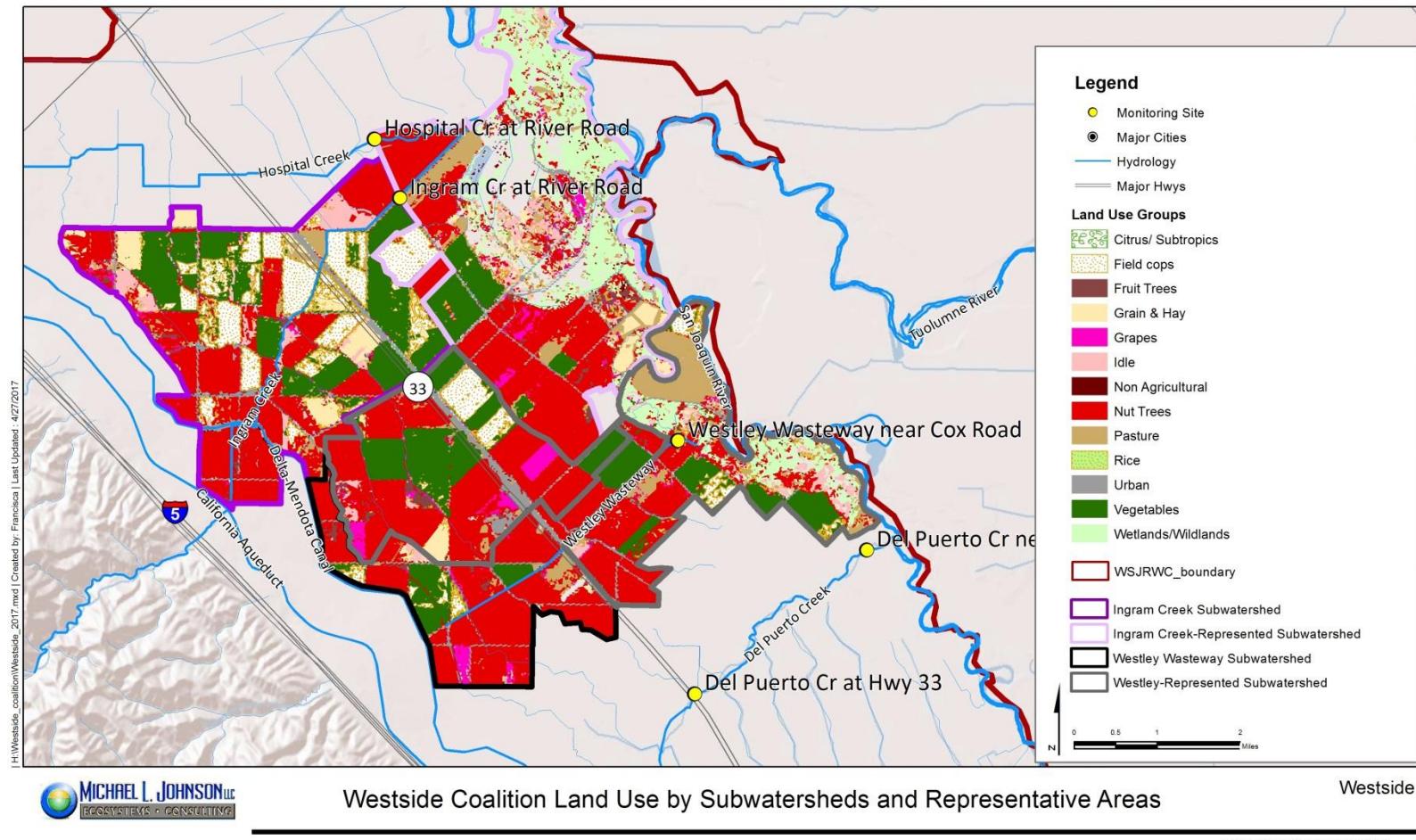
Description of Subwatershed

Westley Wasteway near Cox Road (WWNCR) is a significant drainage for the Patterson Subarea for both tailwater and storm runoff. Land use upstream of this monitoring station is similar to that of Del Puerto Creek. This site has been monitored for a variety of constituents since 2004. The site is located in Stanislaus County. The subarea includes 7700 acres of irrigated area. The primary irrigated acreage within the subwatershed are alfalfa, almonds, tomatoes, and walnuts. Sediment discharge, sediment toxicity, aquatic toxicity (water flea), and pesticides have been measured at this site. Discharge at this site is measured by a rectangular weir.

Table 38. Westley Wasteway near Cox Road management plan constituents.

10 YEAR DEADLINE	SUBWATERSHED NAME	CONSTITUENT	LAST EXCEEDANCE
2015	Westley Wasteway near Cox Road	Chlorpyrifos	2015
2016	Westley Wasteway near Cox Road	<i>H. azteca</i>	2016
2018	Westley Wasteway near Cox Road	<i>S. capricornutum</i>	2012
2018	Westley Wasteway near Cox Road	DDE	2013
2018	Westley Wasteway near Cox Road	DDT	2010
2021	Westley Wasteway near Cox Road	Diuron	2012

Figure 18. Westley Wasteway near Cox Road subwatershed land use map



Monitoring History Results

The Coalition initiated monitoring at Westley Wasteway near Cox Road in 2004 and has continued to the present.

Table 39. Westley Wasteway near Cox Road monitoring history for management plan constituents.

MONITORING YEAR	MANAGEMENT PLAN CONSTITUENTS	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
2004	Date							7/6/04	8/10/04	9/13/2004			
	Chlorpyrifos							ND	0.056				
	<i>Selenastrum capricornutum</i>							1418250	861750				
	<i>Hyalella azteca</i>								0.1				
2005	Date		3/7	3/8	4/12/05	5/10/2005	6/14/05	7/12/05	8/9/2005		10/11/05		
	Chlorpyrifos				0.034	ND	ND	ND	ND				
	<i>Selenastrum capricornutum</i>			2700000	3030000	1890000	2290000	1640000	2410000				
	<i>Hyalella azteca</i>		0								0		
2006	Date		3/13/2006			5/9/2006	6/13/06		8/8/2006	9/11/2006			
	Chlorpyrifos					ND	0.032		ND				
	DDE								0.06				
	DDT								0.024				
	Diuron								ND				
	<i>Selenastrum capricornutum</i>					2704000	1640000		1267750				
2007	<i>Hyalella azteca</i>		0							1.25			
	Date	3/12	3/13	4/10/07	5/8/2007	6/12/07	7/10/07	8/14/07		9/10/2007			
	Chlorpyrifos			<0.0026	<0.0026	<0.0026	<0.0026	0.017	<0.0026				
	DDE(p,p')			0.0092	0.044	0.013	0.014	0.032	0.02				
	DDT(p,p')			0.0088	0.023	<0.007	<0.007	<0.007	0.0083				
	Diuron		4	0.54	0.63	1.3	0.98	<0.2					
	<i>Selenastrum capricornutum</i>		447500	2302750	2303500	986775	1250000	1330000					
2008	<i>Hyalella azteca</i>		0							0			
	Date		3/10/2008	4/8/2008	5/13/2008	6/10/08	7/8/2008	8/12/08		9/9/2008			
	Chlorpyrifos				<0.0026	0.05	<0.0026	<0.0026	<0.0026				
	DDE(p,p')				0.0074	0.0049	0.013	0.018	0.02				
	DDT(p,p')				<0.007	<0.007	<0.007	<0.007	<0.007				
	Diuron				0.25	1.2	0.98	0.2	<0.20				
	<i>Selenastrum capricornutum</i>				1690000	1210000	2030000	2925000	3606000				
2009	<i>Hyalella azteca</i>		65							1.25			
	Date		3/9/2009	4/14/09	5/12/2009	6/9/2009	7/14/09	8/11/09		9/14/2009			
	Chlorpyrifos				<0.0026	<0.0026	<0.0026	<0.0026	<0.0026				
	DDE(p,p')				<0.004	0.014	0.0053	0.01	0.0083				
	DDT(p,p')				<0.007	<0.007	<0.007	<0.007	<0.007				
	Diuron				<0.20	0.24	<0.20	<0.20	<0.20				
	<i>Selenastrum capricornutum</i>				3290000	1555000	3358000	4390000	2225000				
2010	<i>Hyalella azteca</i>		82.5							92.5			
	Date					5/11/2010	6/8/2010	7/14/10	8/10/2010	9/13/2010			
	Chlorpyrifos					0.012	<0.0026	0.13	<0.0026	0.54			
	DDE(p,p')					0.011	0.027	0.014	0.0077				
2010	DDT(p,p')					<0.007	0.01	<0.007	<0.007				

MONITORING YEAR	MANAGEMENT PLAN CONSTITUENTS	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
	Diuron					13	11	1.8	<0.20				
	<i>Selenastrum capricornutum</i>					1503000	764000	3033000	2468000				
	<i>Hyalella azteca</i>									41.25			
2011	Date			3/8/2011	4/12/11	5/10	5/24	6/14/11	7/12/11	8/9/2011	9/12	9/13	10/11/11
	Chlorpyrifos			<0.0026	<0.0026	<0.0026		0.072	<0.0026	<0.0026		<0.0026	<0.0026
	DDE(p,p')			0.0056	0.006	0.0052		<0.004	0.0044	0.0086		<0.004	0.005
	DDT(p,p')			<0.007	<0.007	<0.007		<0.007	<0.007	<0.007		<0.007	<0.007
	Diuron			0.29	<0.20	3.1		1.7	0.40	0.57		<0.20	<0.20
	<i>Selenastrum capricornutum</i>			2690000	4560000	2608000		3769000	4565000	4003000		4785000	4523000
2012	<i>Hyalella azteca</i>						93.75			90			
	Date	1/11/2012		3/12	3/13	4/10/12	5/8/2012	6/12/12	7/10/12	8/14/12	9/10/2012		
	Chlorpyrifos	<0.0026			<0.0026	<0.0026	<0.0026	<0.0026	<0.0026	<0.0026			
	DDE(p,p')	<0.004			0.0074	<0.004	<0.004	0.0052	<0.004	<0.004			
	DDT(p,p')	<0.007			<0.007	<0.007	<0.007	<0.007	<0.007	<0.007			
	Diuron	0.26			19	0.58	0.37	<0.20	<0.20	0.47			
2013	<i>Selenastrum capricornutum</i>	3848000			191000	3215000	3783000	3303000	4208000	4270000			
	<i>Hyalella azteca</i>				15						13.75		
	Date		3/11	3/12	4/9/2013	5/14/2013	6/11/13	7/9/2013	8/13/13	9/9/2013			
	Chlorpyrifos				<0.0026	<0.0026	<0.0026	<0.0026	<0.0026	<0.0026			
	DDE(p,p')				<0.004	<0.004	<0.004	<0.004	0.0040	<0.004			
	DDT(p,p')				<0.007	<0.007	<0.007	<0.007	<0.007	<0.007			
2014	Diuron				1.3	0.65	<0.20	<0.20	<0.20	<0.20			
	<i>Selenastrum capricornutum</i>				5523000	3560000	6293000	3905000	4673000	4998000			
	<i>Hyalella azteca</i>				1.25						2.5		
	Date			3/10/2014	4/8/2014	5/13/2014	6/10/14	7/8/2014	8/12/14	9/8	9/9	10/14/14	11/12/14
	Chlorpyrifos					<0.0026	<0.0026	<0.0026	<0.0026	<0.0026		<0.0026	<0.0026
	DDE(p,p')					<0.004	<0.004	<0.004	<0.004	<0.004		<0.004	<0.004
2015	DDT(p,p')					<0.007	<0.007	<0.007	<0.007	<0.007		<0.007	<0.007
	Diuron					<0.20	<0.20	<0.20	<0.20	<0.20		<0.20	<0.20
	<i>Selenastrum capricornutum</i>					5915000	6648000	3600000	5510000			6615000	6615000
	<i>Hyalella azteca</i>					87.5					61.25		
	Date	1/13/2015		3/9	3/10	4/14/15	5/12/2015	6/9/2015	7/14/15				
	Chlorpyrifos	0.22				<0.0026	<0.0026	<0.0026	<0.0026	<0.0026			
2016	DDE(p,p')	<0.004				<0.004	<0.004	<0.004	<0.004	<0.004			
	DDT(p,p')	<0.007				<0.007	<0.007	<0.007	<0.007	<0.007			
	Diuron	<0.20				<0.20	1.3	<0.20	<0.20	<0.20			
	<i>Selenastrum capricornutum</i>	5970000			6017000	2340000	5248000	5005000	5940000				
	<i>Hyalella azteca</i>				65.71								
2016	Date						5/10/2016	6/14/16	7/12/16	8/9/2016	9/12/2016		
	Chlorpyrifos						<0.0026	<0.0026	<0.0026	<0.0026			
	DDE(p,p')						<0.004	<0.004	<0.020	<0.004			
	DDT(p,p')						<0.007	<0.007	<0.035	<0.007			
	Diuron						<0.20	<0.20	<0.20	<0.20			

MONITORING YEAR	MANAGEMENT PLAN CONSTITUENTS	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
	<i>Selenastrum capricornutum</i>					5775000	5738000	6890000	5605000				
	<i>Hyalella azteca</i>									37.5			
2017	Date				4/11/17	5/9/2017	6/13/17						
	Chlorpyrifos				<0.0026	<0.0026							
	DDE(p,p')				<0.004	<0.004							
	DDT(p,p')				<0.007	<0.007							
	Diuron				<0.20	<0.20							
	<i>Selenastrum capricornutum</i>				6623000	5298000	5348000						